

670	27364	92836	89428	61208	74982	36498	32764	81276	81276
4986	40932	70987	32123	49817	26346	81287	65491	87364	81276
721	75654	55656	12737	72727	72727	91918	63473	67867	76543
723	87629	37677	32612	53498	71296	28756	18276	98716	87654
7269	76329	74698	76857	98670	27601	56701	57601	73648	15432
591	87364	87265	96710	27630	12673	84769	28743	98127	54321
58	63298	75698	27465	87326	49876	28376	81273	98615	62345
667	87432	74328	78674	29867	32867	67867	86786	43286	43286
667	68768	68763	34234	34238	68768	62342	48273	48768	23456
936	98432	32432	86743	43286	43286	43286	43286	43286	43286
743	86743	86743	39867	32867	86743	43286	43286	43243	86743
741	86743	86743	86743	86743	86743	86743	86743	86743	43521
543	98798	98754	98754	98754	98754	29867	67543	67986	86743
76	87698	69876	87698	69876	87612	12341	34867	86798	63210
867	43298	65656	56756	56123	32143	14321	32143	14321	32143
71	32787	58765	76587	58765	76587	58765	76587	58756	76587
75476	76543	54365	36543	54365	36543	54365	36543	54365	36543

# *Numbers & Oddities*

## *a.k.a. The Spooks Newsletter*

*Edition #195, December 2013*

Editor: Ary Boender email: [ary@luna.nl](mailto:ary@luna.nl)

Check for previous newsletters, info, sound samples and databases also:

**NUMBERS & ODDITIES** <http://www.numbersoddities.nl>

**SPY NUMBERS ONLINE DATABASE** <http://www.spynumbers.com/numbersDB>

**UTILITY DXERS FORUM (UDXF)** <http://www.udxf.nl>

**START PAGE** <http://home.luna.nl/~ary>

**HF UNDERGROUND** <http://www.hfunderground.com/board/>

**Welcome to the 195<sup>th</sup> edition of "Numbers & Oddities"**  
**I'd like to thank all our active members for their**  
**contributions to the UDXF, Spooks and HF Underground**  
**mailing lists and forums. I hope that you will continue this in**  
**2014 as well.**

**I wish you and your dear ones**

Gelukkig nieuwjaar  
 Gelukkige nuwejaar  
 Gëzuar vitin e ri  
 Sana saiida  
 Shnorhavor nor tari  
 Subho nababarsho  
 sretna nova godina  
 честита нова година (chestita nova godina)  
 Bon any nou  
 Xin nian kuai le / xin nian hao  
 Pace e salute  
 Godt nyttår  
 Ein gutes neues Jahr / prost Neujahr  
 Happy new year  
 Feliĉan novan jaron  
 Head uut aastat  
 Onnellista uutta vuotta  
 Bonne année  
 Lökkich neijier  
 Gilocavt akhal tsels  
 kali xronia  
 Hauoli makahiki hou  
 Shana tova  
 Boldog új évét  
 Farsælt komandi ár  
 Selamat tahun baru  
 Felice anno nuovo / buon anno  
 Sugeng warsa enggal  
 Akemashite omedetô

Sun lin fi lok / kung hé fat tsoi  
 Zhana zhiliniz kutti bolsin  
 Seh heh bok mani bat uh seyo  
 Sretna nova godina  
 Sabai di pi mai  
 Iaimigu Jauno gadu  
 Iaimingü Naujuju Metü  
 E gudd neit Joër  
 Среќна Нова Година (srekna nova godina)  
 Selamat tahun baru  
 Is-sena t-tajba  
 Kia hari te tau hou  
 Shine jiliin bayariin mend hurgeye (Шинэ жилийн баярын мэнд  
 хvрæе)  
 Godt nyttår  
 Щасливого Нового Року Yangi yilingiz qutlug' bo'lsin  
 Sâle no mobâarak  
 Szczęśliwego nowego roku  
 Feliz ano novo  
 Un an nou fericit  
 С Новым Годом (S novim godom)  
 Bonu annu nou  
 Srećna nova godina / Срећна нова година  
 šťastný nový rok  
 Srečno novo leto  
 Sanad wanagsan  
 Feliz año nuevo  
 Mwaka mzuri / heri ya mwaka mpya  
 สวัสดีปีใหม่ (sawatdii pimai)  
 Tashi delek  
 šťastný nový rok  
 yeni yiliniz kutlu olsun  
 Chúc Mừng Năm Mới  
 Blwyddyn newydd dda  
 Gott nytt år  
 Es guets Nöis



<http://www.mrwallpaper.com/>



Effective with the February 2014 issue of CQ, content from the magazine's three sister publications - Popular Communications, CQ VHF and WorldRadio Online - will be incorporated into CQ's new digital magazine called CQ Plus. The print editions of Popular Communications and CQ VHF will be phased out, and WorldRadio Online will no longer exist as a separate online publication.

<http://www.popular-communications.com>

<http://www.cq-amateur-radio.com>

<http://www.cq-vhf.com>

<http://www.worldradiomagazine.com>

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## VOICE STATIONS



### **E07**

**4564 kHz, 15-12, 1840 UTC:**

485 1 301 119  
84009 49285 66566 51509 87714 81128 46754 87964 01044 59617  
86568 01155 66267 61095 08565 32645 67194 11157 25248 05601  
08143 45971 00225 99225 36859 70941 04272 27763 88482 03719  
51125 65442 2240? 12036 79593 83935 44778 32544 94897 27331  
35911 60324 05795 80914 10839 88192 93862 65372 95975 72060  
11374 18358 94489 88283 52294 47278 94704 241?5 92568 96004  
33166 86315 88619 16189 59210 67201 52072 70204 35685 31757  
81?02 03397 20895 28211 42810 25?08 05453 04680 03035 01134  
38618 07410 00519 17019 93189 85?84 33588 35620 40870 81764  
24484 18979 16113 37369 06342 30181 51955 52188 32011 76551  
60972 60517 49217 813?? 61?98 60263 57478 07500 66008 91023  
86365 98139 03532 88429 04120 32647 72042 10010 2536?  
000 000



### **E11/ E11a**

**15632 kHz, 08-12, 1540 UTC:**

222 30 Attention  
93672 45699 55047 37154 13020 30336 51656 14633 59065 78946  
29329 44134 75482 42612 45072 48262 20968 86791 49050 97010  
33863 68015 87337 25631 09686 99748 14208 28374 71710 11493  
Attention, rpt msg, out

**6923 kHz, 09-12, 1710 UTC:**

951 30 Attention  
57891 15874 00681 67157 24084 97143 97162 54514 83140 31789  
18102 49315 74999 90741 63192 16248 03407 07651 58267 29240  
41740 60938 81185 27343 67659 87393 51097 77252 30372 74686  
Attention, rpt msg, out



## **G06**

**4792 kHz, 13-12, 1930 UTC:**

436 789 20  
92611 69428 538?1 66395 15663 18367 98356 254?8 267?3 86464  
7385? 5398? 28796 53428 89674 26481 76534 09895 14765 56531  
789 20 00000

---



## **G11**

**4441 kHz, 13-12, 15-12, 2000 UTC:**

265/30 Achtung  
28412 25029 71320 50432 78668 13781 56908 50065 84030 10912  
78159 08945 65952 99573 57687 44704 75858 17172 92659 29182  
88913 86931 90850 88127 72253 80849 46618 79732 38232 78764  
Achtung, rpt msg, Ende

---



## **S28 - The Buzzer**

**Mode: USB**  
**Frequency: 4625 kHz**

On the 27<sup>th</sup> I copied a unique message. That was a nice surprise.

09-12, 1259 UTC:	MDZhB 83 703 VALIUM 37 98 66 31 Prijom
09-12, 1300 UTC:	MDZhB 65 022 PETELShChIK 24 13 29 71 VIRALA 29 59 03 46 Prijom
26-12, 1322 UTC:	MDZhB 07 943 TALAUD 29 67 06 75 Priyom
26-12, 1323 UTC:	MDZhB 64 882 OBTURATOR 26 11 79 95 Priyom
27-12, 0900 UTC:	MDZhB 02 206 LILOVYJ 37 28 95 19 Prijom
<b>27-12, 0907 UTC:</b>	<b>MDZhB BESKROVNYJ ShLEJF Prijom (meaning Bloodless Trail over!)</b>
27-12, 0939 UTC:	MDZhB 29 826 BILBOKE 76 71 58 94 Prijom
27-12, 0953 UTC:	MDZhB 17 677 GILDIIa 31 27 62 34 Prijom
27-12, 1043 UTC:	MDZhB 19 774 MAJSKIJ 48 91 38 85 Prijom
27-12, 1047 UTC:	MDZhB 48 022 UGLOVOJ 38 81 87 14 NAGROZDKA 57 47 53 21 TINKAL 01 57 87 53 NEVKUSNYJ 00 98 77 06 Prijom
30-12, 1438 UTC:	MDZhB 42 288 KVARCIT 48 33 31 59

---



## **V02a**

### **Dirección General de Inteligencia**

Unexpectedly V02a popped up !! So far noted on Tuesday and Thursday at 2000 UTC.

24-12-2013	2001	Tue	7555	YL/SS with 5F grps. Very weak sig with bad QRM from SW Bcst.
26-12-2013	2012	Thu	7555	YL/SS announcing msg in 5F grps. Very bad QRM from SW Bcst
31-12-2013	2001	Tue	7555	YL/SS w/5F grps and pause after each 10 grps. Best reception in LSB

---



## **V07**

**16037/14637/12137 kHz, 01-12, 0100/0120/0140 UTC**

661 661 661 1 (x5) 565 85 (x2)  
 72334 94981 01341 88880 51270 21843 11234 80355 31554 37955  
 13797 51339 83799 88201 97229 27434 13311 53234 34440 22893  
 40075 40909 72059 75322 10820 74043 242?4 33348 02124 55533  
 28783 93039 80273 43519 71025 ?7883 07239 22102 31947 45509  
 21701 53121 81843 53472 3?533 87839 15340 3?437 20955 7977?  
 82590 34339 18757 ?3433 83885 43589 31403 3128? 22173 30858  
 40251 19539 332?9 32579 77748 81277 88193 03193 05007 13944  
 74377 25503 34989 31347 44488 87812 04355 80051 27283 79443  
 05295 15722 95399 49785 77154  
 000 000

**16037/14637/12137 kHz, 15-12, 0100/0120/0140 UTC**

661 661 661 1 (x5) 292 83 (x2)  
 38832 51331 20852 48139 99474 93137 71173 58273 03703 35949  
 87251 10172 93823 14780 20039 30897 32553 27723 34400 40540  
 20484 33412 74838 40550 59933 22148 51974 32513 03793 42037  
 12804 19353 72395 90448 73127 07832 95810 28373 42395 35124  
 01414 39892 42177 38155 22734 98509 24001 58100 77373 94733  
 72114 32851 01997 35311 90893 42388 50921 88290 17228 22998  
 13572 88911 45334 75534 55347 89943 32139 17480 98831 84432  
 44814 27777 44743 08859 23274 45422 25390 47123 20752 17710  
 53335 32928 53295  
 000 000

---





## ***V13 - New Star Broadcasting Station***

### **星星廣播電台 Xīngxīng guǎngbò diàntái**

**Frequencies:** 7654, 7688, 8300, 9276, 9522, 9725, 10182, 10522, 11430, 13750, 15388 kHz

#### **Current schedules**

Station #?: 9276 kHz, 0200, 0300, 0400 UTC. Note: 0200 not heard

Station #3: 8300 kHz, 0500 and 0600 UTC. Note: both not heard

Station #4: 9522 kHz, 0700 and 0800 UTC

Station #4: 8300 kHz, 1200 and 1300 UTC



## **V24**

V24 has had even less activity in December than it had in November, 2013. M94 has not been seen in over 2 months. Only 7 transmissions were heard this month from V24, and they were all on 6310 kHz. Last month there were 8 transmissions using 2 frequencies.

I still hold out hope to find that the station has not reduced operations, but only moved to frequencies unknown, however I have been looking for new frequencies for over 2 months now, and so far have not found any. I would certainly like to be wrong, but this station might be winding down operations.

T!

Mojave Desert, California, USA.

V24	6310 kHz	05/12/2013	1430 UTC
V24	6310 kHz	06/12/2013	1430 UTC
V24	6310 kHz	15/12/2013	1300 UTC
V24	6310 kHz	15/12/2013	1430 UTC
V24	6310 kHz	16/12/2013	1430 UTC
V24	6310 kHz	22/12/2013	1300 UTC
V24	6310 kHz	23/12/2013	1300 UTC



## **V26**

Copied by Russell on 9153 kHz on 23-12 at 1006 UTC and 24-12 at 0954 UTC.



## ***V30***

### **Vietnamese numbers**

The following report was submitted by Token.

V30 has also been “normally” active this month. Although V30 has not been being reported often, it has been transmitting. Most days that have a M97 transmission also have a V30 transmission one hour later. In fact generally very close to exactly one hour later, and the start times for V30 move forward (earlier each day) by the same amount as M97.

While some days may have M97 and no V30, I have almost never seen a V30 without an M97 earlier that same day. So if you hear an M97 at 1500 UTC there is a good chance there will be a V30 at 1600 UTC. But if there is no M97 there almost certainly will be no V30.

V30 (all transmissions this month, to December 29, 2013)

10255 kHz, 1559z, 19 December, 2013, (SD 75, SN 35, message x3), Token, Thu  
10255 kHz, 1559z, 20 December, 2013, (SD 75, SN 35, message x3), Token, Fri  
10255 kHz, 1559z, 23 December, 2013, (SD 75, SN 35, message x3), Token, Mon  
10255 kHz, 1559z, 24 December, 2013, (SD 75, SN 35, message x3), Token, Tue  
10255 kHz, 1559z, 26 December, 2013, (SD 75, SN 35, message x3), Token, Thu  
10255 kHz, 1559z, 27 December, 2013, (SD 75, SN 35, message x3), Token, Fri

I have uploaded a video of the v30 transmission on December 23, 2013, to my Youtube channel:  
<http://www.youtube.com/watch?v=1zagxoJat2A> <http://www.youtube.com/watch?v=1zagxoJat2A>

T!  
Mojave Desert, California, USA

---



## ***VC01 - Chinese Robot Chinese Air Defense***

Modes: USB and LSB

The station changes its frequencies frequently. Known frequencies:

3036, 3749, 3837, 4075, 4165, 4175, 4258, 4343, 4410, 4422, 4427, 4480, 4530, 4580, 4726.5, 5195, 5232, 5288, 5303, 5328, 5330, 5393, 5592, 5700, 5742, 5799, 5802, 5832, 5892, 6209, 6479, 6771, 6840, 6858, 6860, 6949, 6960, 7090, 7351, 7608, 7684, 7726, 7739, 7744, 7756, 7770, 7792, 7864, 7865, 7880, 7890, 7924, 7938, 8000, 8025, 8170, 9000, 9169, 9192, 9290, 9340, 10508, 17392 kHz.

Copied by Token on 3-12 at 1500 UTC on 4165 kHz.

---

## **MORSE STATIONS**



## ***MX Russian Military beacons***

Current cluster frequencies:

3594, 4558, 5154, 7039, 8495, 10872, 13528, 16332, 20048 kHz

Other frequencies:

L 6917.5, 8497.8 kHz

V 3658, 4150, 6809, 6928, 7027.5 kHz

R 5466 kHz (seldom reported these days)

W 5835, 8112, 8162 kHz (Air Force)

Cluster beacon slots:

.7 "D", Sevastopol

.8 "P", Kaliningrad

.9 "S", Severomorsk

.0 "C", Moscow

.1 "A", Astrakhan

.2 "F", Vladivostok

.3 "K", Petropavlovsk Kamchatskiy

.4 "M", Magadan

Channel markers:

V: 3335, 3658 kHz

P: 7000 kHz

---



## **M01 / M01c**

One complete message provided by ML.

**M01: 3180 kHz, 27-12, 2110 UTC:**

610 781 32 = =  
44900 21663 13905 50036 09949 15613 70462 30349 32510 67967  
20262 68214 64163 59452 35074 15876 65025 39150 16958 30821  
81952 66964 57360 43998 08613 41783 68067 35433 97290 26177  
10258 37137  
000

---



## **M03**

**5358 kHz, 10-12, 1537 UTC:**

795/34 = =  
23177 75534 72488 74701 93668 46431 63692 34902 12771 89732  
99162 00581 53127 27456 66815 11368 50018 60108 77469 43211  
41168 65158 39399 59267 05777 31006 41736 01901 04150 94340  
18835 44304 06765 50033 = =  
795/34 = =  
23177 75534 72488 74701 93668 46431 63692 34902 12771 89732  
99162 00581 53127 27456 66815 11368 50018 60108 77469 43211  
41168 65158 39399 59267 05777 31006 41736 01901 04150 94340  
18835 44304 06765 50033 = =  
000

---







## ***M08a***

### **Dirección General de Inteligencia**

2-12-2013	1407	Mon	8097	Cuban cut nbrs
3-12-2013	1419	Tue	8096	Cuban cut nbrs
3-12-2013	2030	Tue	7554	Cuban cut nbrs
5-12-2013	1418	Thu	8096	Cuban cut nbrs
5-12-2013	2008	Thu	7554	Cuban cut nbrs
5-12-2013	2116	Thu	16180	M08a mixes with HM01. CW stops at 2117 UTC
6-12-2013	2104	Fri	11635	Cuban cut nbrs. Wrong freq and time for M08a. Voice starts at 2105 UTC: 83381 22574 15441 50182 08444 51835
13-12-2013	1405	Fri	8096	Cuban cut nbrs
16-12-2013	1412	Mon	8095	Cuban cut nbrs
17-12-2013	1407	Tue	8096	Cuban cut nbrs
17-12-2013	1459	Tue	7555	Cuban cut nbrs
18-12-2013	1356	Wed	8095	Cuban cut nbrs. WNWNN RWGWN IGDIA
19-12-2013	2002	Thu	7554	Cuban cut nbrs. Checked again, he is still sending tfc at 2059 UTC
23-12-2013	1405	Mon	8097	Cuban cut nbrs
23-12-2013	2025	Mon	7554	Cuban cut nbrs
30-12-2013	2024	Mon	7554	Cuban cut nbrs

---



## **M12**

**8116 kHz, 05-12, 1740 UTC:**

124 1 6842 73  
 17912 32254 79369 25378 39592 41947 42291 73044 47373 14719  
 62381 39151 72790 23937 93714 98105 05613 30404 99993 90510  
 75277 41536 93143 12455 77330 41153 05560 52806 39311 93044  
 96938 11244 75764 14200 18183 23307 58213 63119 07819 85512  
 48363 59065 39772 33206 65418 39435 63340 64060 70250 55700  
 42531 15731 43960 04162 23444 14216 74370 53482 42987 79324  
 20189 27052 63744 56240 44369 73910 67259 72048 62507 16669  
 61889 71704 15621  
 000 000

---



## ***M21 + variants***

### ***Russian Air Defence Forces***

### **Во́йска ПВО Voyska PVO**

8-12-2013	2039	3322 kHz	=990042?0?????
10-12-2013	1001	4951 kHz	=992009??0?????
10-12-2013	1001	7621 kHz	=9921400?9?????
13-12-2013	1931	4865.5 kHz	=992331??0????? =12047041923630 =22047901100800 =992332??0????? =992333??0?????

---



**M41**  
***Russian Air Defence Forces***  
**Во́йска ПВО Voyska PVO**

17-12-2013 1831 5733.5 kHz PWZW: Rusian Air Defense VVV PWZW PWZW =

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**M51 / FAV22**  
**8ème Régiment de**  
**Transmission**

13-12-2013 1936 3748 kHz In tfc: KDCKV EGYTT TXNCQ SAWDA NEWLG GNTHE (Cont'd) NR 63D 10 20741728 1985 =  
14-12-2013 0928 6825 kHz FAV22 "AR MESI/DIMANCHE 6/LECON N1/3 VITESSE 1200 CODé BT MXSKW NCJDI"  
19-12-2013 0931 6825 kHz DE FAV22 FAV22 FAV22 QLH 3881/6825 KHZ  
19-12-2013 1644 20813.1 kHz 5LGs



Overview of the Chinese SIGINT site in Changji



Chinese SIGINT site in Changji





## ***M89***

### ***Chinese military***

#### ***Stations and strings:***

VVV Q2M Q2M Q2M DE NYZ NYZ  
V 7NPE 7NPE 7NPE DE QV5B QV5B  
V DKG6 DKG6 DKG6 DE 3A7D 3A7D  
V RXP7 RXP7 RXP7 DE CZT2 CZT2  
V H2FL H2FL H2FL DE DRV8 DRV8  
V DP9J DP9J DP9J DE CQ CQ  
V MW3D MW3D MW3D DE 2SLC 2SLC  
V YUQW YUQW YUOQ DE ASDF ASDF

V CQ CQ CQ DE DP9J DP9J

JPL supplied a very large amount of logs. The messages are mentioned below and the logs can be found in the Logs Section.

.... DE GB2  
7UBS  
9JEQ  
9KYR  
A453  
B8ER  
B9MR  
BKS8  
DKN5  
GAI3  
GL3Y  
MWS4  
TBM9  
U00V

24RF DE 54TG  
34EW DE 54TG  
3RF DE 54TG  
3UWD DE 54TG  
BKVE DE PXHT  
D.I2 DE 54TG  
DJBN DE SPM2  
DMN5 DE FOVQ  
DSK5 DE 54TG  
GI5Q DE 8KRZ  
GL3Y DE GL8X  
JS.. DE 54TG  
MWUA DE 2GLJ  
POFR DE QDA7  
WRE3 DE 9JEQ  
YY43 DE SSD9



Chinese SIGINT site in Changji

## Messages:

3797 kHz, 02-12, 1025 UTC:

A3N4 AR  
CQ ../5838 4451 5511 MSG NR 1242 CK 98 42 1202 1820 RMKS 412. TO 5838  
5.1 5511 =  
657D 75D6 66.D TU.. (Cont'd)  
AR

6666 kHz, 02-12, 1034 UTC:

347N 3NU5 4T7A 5D3N 72 ? 7UAT 465N (Cont'd)  
AR  
VV = 74III AR C AR  
VV = 74AD 6T45 72I = 457U 6AD. (Cont'd)  
(Another station now on freq – 1038z)  
AR AR  
DE K  
AGN  
U ???? VV DO.. III VV B4I IA23 AR AR  
47A 5D3 N.UAT 465N (Cont'd)

3797 kHz, 03-12, 1959 UTC:

81/5121/12/04/0430/167/A/69/60 AR (In tfc – 1959z)  
UGT COMM = 254/081/5121/12/04/0430/167/A/69/60 AR

5814 kHz, 03-12, 1142 UTC:

RMKS 134 TO 5678/0123 =  
CL/1230/Z=/1234/..78 AR  
HR MSG PSE .Y HW  
444 VVVVV SVC GA TRTT.223RMKS AW34 TO 560.8/0123 =  
C./1230/Z=/1234/56.8/IEC M.G PSE CY HW 434  
VVV TT1 EEEE  
VV HR HVC GA NR 001 30 RMKS 134 TO 567./13 =  
CL/230/Z=/124/.../  
VVV TT1 EEEE  
VVV HR SVC GA NR 001 30 RMKS 134 TO 5678/013 =  
CL/230/Z=/134/5678 AR (Silent 1150z)

6666 kHz, 03-12,1541 UTC:

U2B U2B USB U2B UU2B U2B U  
U2B U2B UB U3B USB U (Callsign ?)  
6UB U2B U2B UBU2B U (Cont'd)  
= = 4NN4 N7NT NT55 D... (Cont'd)  
= 6 = DTTU HR QSX VVV GN HR QSA . K  
HR NR .OT NOT K R HR NA = VVV  
.. AS AT .N. 33. BAATA  
= = (Silent - 1549z)  
444 UU VVV VVV (1555z Silent)

7777 kHz, 05-12, 1337 UTC. //A = station A //B = station B

21 TO 2.10. 176 TO 2945 K //A  
R RPT R RPT RMKS K//B (Both stations on this frequency)  
RMKS 2.5 TO 2.2. TO ..10 TO.  
RMKS 295. TO 2921 TO 251. TO 1..945 K  
R GA GA K//B  
R BT BT  
TU.7 .4.D 7 (Cont'd)  
AR //A  
R QSL 2145 K //B  
R HR WK //A  
HR NR 330 K //B  
HR NIL SK GB //A

4487 kHz, 03-12, 1119 UTC:

A63U AR K  
R RPT 5.. (Both stations on this frequency)  
RPT 52 TO57W K  
RPT 52W TO 57W = 6U7D 53T4 A765 UND3 D54N 67TA AR K  
R OK QSL 1922 WK NR 525 K  
RRR HR WK NR 325 K  
HR 7G TO U PSE T.CY K  
RRR OK GA K  
7G NR 465 CK 100 .3 1203 1? 1911 RMKS RMKS .576. ..688 TO 5763 K  
RR OK GA K  
=  
N5TU 5E? 47D3 A65N A63U 4D7T NT4A U635 7D5N 63T7 A4UD NT75 (Cont'd)  
AR K  
R RPT 50 ? 50W = 4TN6 T? AR K  
R RPT 50W = = 4TN6 AR K  
RPT 59W K  
R RPT 59W = = 7TU3 AR K  
.... 70U3 AR K  
R RPT 66W K  
R RPT 66W = = A45U AR K  
R RPT 93W K  
R RPT 93W = = 56N7 AR K  
R RPT 51W TO 6W ?  
R RPT 51W TO 60W K  
R RPT 51 TO 60W = =  
TNA4 6U.. 53T4 A765 UND3 D54N 67TA U345 DN6U 7TU3 AR K  
RR QSL 1932  
OK NR 325 K  
R OK WN ?  
OK WK NR 525 K  
R R BL VA  
R OK NIL VA PSE LL (Silent 1135z)

7777 kHz, 03-12, 1042 UTC:

6ISH AR K  
N S EEEE U E GA K  
AGN  
R QSL 1845 K  
HR 7G GA K  
7G NR 06 CK 115 29 1203 1 AGN R  
HR MSG GA K  
MSG NR 06 CK 30 19 1203 1848 RMKS QSP 9139 TO  
5617/5539/5799/5639/5583/5626/5624/5625 K  
= =  
573D 34A7 5N7T N754 T356 TU65 7DTU A34T TA7A TT45 DET?  
DUA7 NTDA 5DA4 74A5 7TDA N6A3 T564 A6T4 UN53 TA3U  
TAN5 N45D T4D3 ND57 4T63 N3D7 67ND T645 4N7D 5T46 AR K  
K K  
AGN  
R R  
= = =  
573D 34A7 5N7T N754 T356 TU65 7DTU A34T TA7A TT45  
DUA7 NTDA 5DA4 74A5 7TDA N6A3 T564 A6T4 I? A6T4 UN53 TA3U  
TAN5 N45D T3 ? T4D3 ND5 ? ND57 4T63 N3D7 67ND T645 4N7D 5T46 AR K  
R  
SK

5555 kHz, 05-12, 1725 UTC:

= D7A6 DT36 U77N 6436 4TAU 6U57 (In tfc)  
III = UAAU 745T A5U5 5746 6543 757U (Cont'd)



7777 kHz, 03-12, 1312 UTC:

ICE = 8522 AR K (In chat –normally associated with Exercise tfc)  
R = 7033 AR K (Both stations on this frequency)  
R HR NR NOT CR HR NR NOT K  
R HR I. GA K  
R GA K  
R NR 06/EX 2113 RMKS 9139 TO 5583 DE =  
5I2ME/JA3NB AR  
= 5I2ME/JA3NB AR K  
R QSL 2114 K  
R HR GA K  
R GA R  
NR 06/EX V EEEE  
NR 06/EX 2114 RMKS 5583 TO 9139 =  
ABCD1/DCBA2 AR  
= ABCD1/DCBA2 AR K  
R SAPN  
R R7G GA K  
QSL ? K  
R QSL 2116 K  
OK K  
QSL 2116 K  
OK  
R U 7G GA K  
MSG W EEEE  
HR MSG GA K  
R GA K  
R 7G NR 06 30 29 1203 2100 RMKS 9139 TO 5583 K  
R GA K = =  
3567 3N4A 5UTA 74TD 34U? 34UA N66T 4TU3 U3U7 TADA TTT3  
5NNT UT43 NT7T 5766 UT5T AN74 NUDA U557 3NU7 47TA 7N3T  
6764 6DN3 7NNN A74D 5U73 4AAN 6U4A U7ND 34N4 AR K  
R QSL 223 K  
AGN  
R QSL 2123 K  
SK  
HR MSG GA K  
AS  
HR MSG GA K  
R GA K  
R MSG NR 06 EEEE  
MSG NR 06 CK 30 29 1203 2124 RMKS 5583 TO 9139 K  
R R GA K  
R = =  
BU5T 364U 7AUA 7DA5 7T64 6U4U U74A 7DD6 TA63 TTA6  
AD36 3U45 7DNU A567 6UTU 74DN A55D U53U 3N77 7NND  
AU3T U536 UAN4 43U5 4NA 6737 657A 5AA5 4746 6D6T AR K  
R PT 10W K  
R 10W = = TTT3 AR K  
R 10W QS. AGN QSL 2127 K  
R SK SK R R  
R DE DKN5 K  
R AS  
U QSY TO NR 15 K  
U QSY TO NR 15  
DE DKN5 K  
R QSA 2 K  
AGN  
R = 7033 AR  
R HR NR 651 K  
HR NR 651 K  
GA  
R QSL 2138 K  
R NR 41/EX 2139 RMKS 5799 TO 9139 =  
ABCD1/ABCD2 AR =  
ABCD1/ABCD2 AR K  
R  
GA  
AGN  
C GA  
R QSL 2153 K  
SK GB  
VVV VVV VVV (Silent 1356z)

3733 kHz, 05-12, 2019 UTC:

DA73 5NT6 6.UN 4N7D NA7D (Cont'd)  
AR K R ...  
AS VV BKVE DE PXHT K  
.... DE PXHT K  
QX5U  
R R AS  
VV BKVE DE PXHT K  
R R HT EEE R EEE  
HR CQ MSG GA RC =  
MSG ... MSG MSG NR 5719 CK 68 91 1205 04.1 RMKS CQ = =  
AD35 ND45 74UD 6... (Cont'd)  
R R QSL? K  
NR GN 5W K  
R R HR WK NR 21. K  
KP VVV  
UF.. R QSL .. K  
QSL ...3.. K  
OK  
UMPSV EEEE  
VVV MWS4 K  
R R QSL? K R R K PK (2033z silent)

---

6666 kHz, 05-12, 0125 UTC. //A = station A //B = station B

199 29 1205 RMKS 9139 TO 5539 K (0125z handsent)//A  
AGN AGN//B (Both station on this frequency)  
7G NR 012 CK 199 7G NR 012 CK 1//A  
NR 012 CK 199 AARPN //A  
7G NR 012 CK 199 29 1205 0925 RMKS 9139 TO 5539 K //A  
GA//B  
= DTA4 533M ? 533N N3TA DD37 3D67 N6NA TNU5 N4N5 TA77 TTA5  
5? 547T 6477 TD5N (Cont'd)//A  
AR//A  
R 1P K//B  
R//A  
....//B  
AGN//A  
1W .... K//B  
R K//A  
1W K//B  
K //A  
1W K 1P ...//B  
U QSY TO 33 EEEE UQSY TO 3 K K V G //A  
VV DMN5 DE FOVQ K //A  
RR DE 9JEQ K (0149z)//A  
VV K VVV DMN5 DE FOVQ K //A  
RRR DE 9JEQ K//A  
VV DMN5 DE FOVQ K//A  
AGN//A  
WRE3 WRE3 EEEE//A  
VV WRE3 WRE3 DE 9JEQ K//A  
VV VV P0FR DE QDA7 K (Callsign P Zero FR)  
R DE 9JEQ ... FOVQ K  
R HR QSA 3 K  
DVV DMN5 DE FOVQ K  
AGN  
VV DMN5 DE FOVQ K  
DMN5 DE F EEEEEEE  
DMN5 U EEEEEEE  
VV HLP.  
EE NR 1001/..=  
9/7N AR  
EE QSY M QSY ...  
BNU. EE NR 1002/EX  
DAT. =  
BKS8 ... 001/EX TDAT X  
.... AR (0203z)  
../DEFEG. AR .. SK  
(Another extremely weak station on freq – 0205z)  
VVV B8ER  
EE NR 101 EEE  
= 110M0 =  
VVV A453. (0208z silent)

6666 kHz, 06-12, 1126 UTC, i.p. //A = station A //B = is station B

AR //A  
8Q EEE O EEEE 80W K //B (Both station on this frequency)  
BR N47A AR //A  
O EEE 81W K//B  
= DAUU AR //A  
R 12W K//B  
= NDU4 AR //A  
FM =//B  
UT43 AR //  
QSL 19.. K //B  
R R //A  
HR 7G GA K GA GA  
MSG NR 13 CK 99 65 1206 1930 RMKS 5345 TO 1194 K  
GA = =  
45U7 A3NU 647D NU6U 65AN A3DA 3UT7 5U56 TA76 TTT3  
T76A U3DT 6D4N TU3N 3437 6T7U 37U4 N7DT 746A (Cont'd)  
AR K  
R 50W  
50W = 65AD AR K  
R 99W K  
R = 543U AR K  
R QSL 1938 K  
R U MSG GA  
R HR MSG GA K R R  
MSG GA NR 35 CK 99 84 1206 1939 RMKS 1194 TO 5345 K  
R K R GA = =  
A45D A5U4 U6TA 6DD4 553A UAU6 UT73 5T74 TA63 TT47 T3D4 (Cont'd)  
AR  
50W K  
= = 5656 AR  
41W  
= 37TD AR  
23W  
= A3N7 AR  
QSL 1946 EEEE QSL 1946 K  
R R AS R R

5555 kHz, 06-12, 1207 UTC:

1009161/913 AR (In tfc)  
=  
COMM/2.45/LZ106A2./8652/9161 AR  
COMM/2A EEE=  
COMM/2045/LZ106A1/8652/9161 AR  
VVV HR SVC NR 77.  
NR 77 2000 RMKS .6EE1.. 61/. RMKS 8651 TO 9561/9131 =  
SVC Q =  
SVC Q.. 9131 QR. 189161 20.0 COMM ..1. AR  
9.31 QR. 91.916. 2030 COMM 9561.  
HR .WK NR 28  
SVC QRW 9131 QR. L189161 0200 COMM 9561 AR =  
IVC QRW 9131 QRW L189161 .200 COMM 9561 AR  
HR WK NR 56 AR

10271 kHz, 08-12, 0930 UTC:

8 T0 10150 K (In tfc – handsent)  
R G A  
BT ANAT A.VA T655 U57T NADD (Cont'd)  
K  
7G GA  
QSA 2 K 3..  
QSL 17.. K  
GB

5555 kHz, 09-12, 1847 UTC:

N5T6 NT54 A75U 63AU 76DA III =  
TT6D E N4D7 6DU7  
TT6D N4D7 5DU7 3U6A (Cont'd)  
III  
VV VV = T5NA T343 5T4N 55ND T33A (Cont'd)  
III (1857z silent)

5555 kHz, 06-12, 1207 UTC, i.p.

UT34 65NA (Handsent)  
05 05 TN34 D455 7NTU A34U (Cont'd)  
05 05 05 05 A437 .. 20 K OK G OK G.. (Horrible CW)  
.. NR 34. 7N AUN3 T74A 5D5U (Cont'd)  
05 AR 05 05  
05 UVV = 7G NR .05 ORR 05 2 NR 311 NR 391 AR  
VV 4N4 T553 UN. 3NIU 3NU. (Cont'd)  
(Another station on frequency)  
05 05 05 05  
= T.AU N3T. (Very hard to copy as both stations sending at same time)  
05 05 05 NR 316 05 05 05 05 (Into tfc)  
AR  
05 05 05 = = Z305 3A. 60 Z3 5T 4S NU5 NTND.. (Cont'd)  
(Another station on frequency)

5555 kHz, 06-12, 1807 UTC:

R R DE B9MR K R R DE B9MR K R R DE B9MR K  
R R DE B9MR K R R DE B9MR K  
R QSA 2 K  
R R = 5B73 AR K  
R 5R NR 106 K  
U QSY TO 8811 U QSY TO 8811 K U QSY TO 8811 K  
U QSY TO 8811 U QSY TO 8811 K U QSY TO 8811 K  
U QSY TO 1111 U SQY TO 1111 K  
DE B9MR K  
R GA (Checked 8811 and 1111 but nothing heard) GA  
R RPT 20W RPT 20W R RPT 21W R RPT 19W  
R QSL 0225 K  
NR 7G NR 25/CCK CK 30 20 AGN  
MSG NR 25/CCK CK 30 28 1207 0205 RMKS 0884 TO 67086 K  
MSG NR 25/CCK CK 30 28 1207 0205 RMKS 0884 TO 6786 K  
R = =  
3D76 67D6 46U5 764D N53A 7T5A 6N53 N473 TAN4 TT3T  
ADT4 U653 56DT (Cont'd)  
AR K  
R R SK GB

8888 kHz, 08-12, 1001UTC:

K R R 2P 2P  
K AGN  
RV2P 2P  
AG35W TO 39W 35W TO 39W K  
35W TO 39W K  
38W 38W K  
R 38W 38W K  
38W 38W  
38W 38W  
38W 38W 38W  
FM FM  
37W 37W 37W  
37W 37W 37W K  
AGN R R (1007z silent)

7777 kHz, 09-12, 0945 UTC:

TU4. 6T54 D3DT T3A6 (Cont'd)  
BT III 7PG 7PG  
GA = = (Both stations on this frequency)  
5UDD 56A4 AT.N N6DT D363 (Cont'd)  
BT III 8PG = =  
4DDA .D.T D5TA 4NNN (Cont'd)  
III III 9 PG GA =  
T374 3TN. U345 T3N7 63AA (Cont'd)  
III III (1006z)  
11PG G X = = = =  
6677 7U5.. (Cont'd)  
III III 12 PG = =  
U676 UTDD 6D7A TA3T 76NT (Cont'd)

5555 kHz, 09-12, 2203 UTC:

EEEE B A66 = 7DAV 7DA3 64N7 TU7N A33D (Cont'd)  
II II = TNTN U476 U7N3 T4DA 5NDA (Cont'd)  
III III DBUD DETT DD 75N5 UUA4 TT74 63N5 4AUN (Cont'd)  
AR K  
VV VV VV YY43 DE SSD9 R K R  
DE UO0V (UO ZERO V)  
V KRR HR QSA 2 K (Both stations on this frequency)  
R R HR QSA 3 K  
R R  
ICE = 1243 AR K (Normally associated with Exercise traffic)  
R = 3421 AR AR  
AGN  
R BT 3421 AR K  
R R  
SNGN HR NR NOT K  
R R  
HR NR NOT K  
R HR SG GA K  
R R GA  
GSG NR 018 CK 99 18 1210 0600 RMKS 7407 TO 0798 K  
R R GA  
R =  
7DA3 645N TA7N A33D 5U5A 35A7 AZ? ? A76N 36UA TA7N TTA3 ATA5 (Cont'd)  
AR  
= = = 7G NR AGN NR 01 CCK199 EEEEE  
7DA3 64N7 TU7N A33D 5U5A (Repeat of above msg)  
= = =  
7DA3 64N7 TU7N A33D 5U5A 35AA 7A76 N36U (Cont'd)  
K  
= = =  
7DA3 64N7 TU7N A33D 5U5A 35AA 7A.. N36U (Cont'd)  
(Seems to be sending same message over and over. Silent 2301z)

7538 kHz, 09-12, 0336 UTC:

MSG NR 5710 CK 9.. NR 5711 43EEEE  
MSG CK 0..1209 ... K  
MSG NR 5710 CK 3 EEEE  
MSG 5710 CK 80 44 1209 1020 RMKS 30.. TO 61.. K  
..SD AN3U 7TDU AU7. .TU. (Cont'd)  
? K  
R AGN GA K (0342z silent)

5555 kHz, 11-12, 1055 kHz:

RMKS 6402 TO 3722 = =  
IV.EEEE = =  
IVLU1/UDNO2 =  
IVLU1/UDNO2 AR K  
R FF NR 034/CCK 1050 RMKS T402TO 3822 EEEE  
FF NR 034/CCK 1850 RMKS 6402 TO 3722 = =  
IVLU1/UDNOU AR K  
IVLU1/UDNO2 CK  
U F GA K  
(Message format would suggest this station belongs to the QV5B family)  
RPT K  
GA  
QSL 1859 K  
PSE U QSW 3142 K  
PSE U QSW 314U 2030 K  
PSE U QSW 3042 AT 2030 U PSE K (1102z silent)

5555 kHz, 16-12, 0115 UTC:

756A DTUN 345D NT6A 37U4 (Cont'd)  
III AR (0118z)  
VVV =  
DUN7 53A4 6T73 TA3? 5T4N (Cont'd)  
AR (0121z silent)

4474 kHz, 09-12,1341 UTC:

GL3Y DE GL8X (In tfc). This frequency normally used by CZT2 – Due to signal strength of this station probably part of the QV5B Family.

U QSY TO NR 10100 K  
U QSY TO NR 10 K K  
KK U QSY TO NR 10 10 K K  
DE DE DE DE DE GL3Y K K  
DE DE R R R QSA2 K  
R R ICE NU 6170 AR K K (Normally exercise related)  
K K 6170 AR K K  
R R HR NR NOT K K  
R U NR NOT K  
R R HR .. K  
R FF NR 05/EX 2145 RMKS 6786 TO 0272 K K  
FF NR 05/EX 2145 RMKS 6786 TO 0272 K K  
= =  
INTNU2/A5LHE AR =  
INGN2/A5LSE AR K K  
K K R  
IN.U2/A5LHE AR =  
INGU2/A5LSE AR K K  
R R U FF GA K K  
VVV VVV U QSY TO NR U3 U3 U3 K K  
23 UY.EEE U QSY TO NR 2 EEE EEE23 U QSY TO NR 23  
U QSY TO NR 24 24 K  
U QSY TO NR 24 24 K K  
U QSY TO NR 06 06 06 K K K  
U QSY TO NR 02 02 U QSY TO NR U QSY TO 10 K  
U QSY TO NR 10 10 K K  
U QSY TO NR 17 17 K  
U QSY TO 1933 K U QSY TO 1933  
QSY TO 1933 K K  
U QSY TO 1933 K K  
U QSY TO NR 06 EEEE U QSY TO NR 06 K  
DE DE R R R DE DE DE DE K K K  
DE U ..YTO NR 02 K K U TK.. NR 02 K K  
U QSY TO NR 02 K K  
R RR VVV GAI3 EEEE  
V GL3Y DE GL8X K  
VVV GA EEEEE  
VVV GL3Y DE GL8X K  
RR UF GA K  
R R AGN K  
AGN RPT K  
GL3Y K KK  
QSL 2148  
AGN U F GA K  
R R R R GA  
U QSY TO NR 06 06 K K  
U QSY TO NR (1403z silent)

5555 kHz, 11-12, 1153 UTC

QSA2 N QSA QSA2 22 QSA2  
U QSA2 2 2 2 2 2 2 2 2 2  
1122 22 2 2 2 2 2 2 2 2 2  
88 99 99 90 02 2 2 2 2 2 2 2 2 2 2  
= = = 5UT4 T4D7 6U7. ??  
3W 3W 3W 3W WW 3W 3W = = 3W = = 6A73 4U3D 756U TDA6 U37N  
T36A 3D67 6UN??? 6A ??? 6A7N  
10W = = 6A7N = = 6A7N 6A7N 6A7N

6666 kHz, 11-12, 1042 UTC:

In tfc – This sounds the louder of the 2 stations on 5555 just a few minutes ago – 1042z

RMKS R K  
RMKS 7914 TO 1497 R K  
OK GA (Both stations on this frequency)  
VVV = =  
6.D 3TA7 U4N6 5T3D A7U4 (Cont'd)  
VV VV (1047z silent)

5755 kHz, 11-12, 0143 UTC

NR 180 EEEEE AGN  
NR 1805/EX 0943 RMKS CQ =  
CQ 61 EEEEE= (Message format suggests this station belongs to the 2SLC family)  
CQ 61/DEC3. AGN  
NR 1805/EX 0943 RMKS CQ =  
CQ 61 DEC3 AR QSL ? K  
AAL QSL 0.4. QSL 0946  
HR CQ 7G GA  
HR CQ 7G GA  
7G NR 1806 CK 80 45 1211 0930 RMKS EEEE  
HR CQ 7G GA  
7G NR 1806 CK 80 45 1211 0930 RMKS CQ =  
AT4U 3TA. ...3TA 6TU7 463T 34U. AUDN DU45 6DT7 743N (Cont'd)  
AR QSL?  
ALL QST EEEE ALL QSL 0955 ALL QSL 0955 ALL CHG USB WK AR

7777 kHz, 11-12, 1123 UTC:

R R DE 8K... K  
DE DE  
DE 8KRZ  
R HR QSA 3 K  
QSY TO NR 16 U QSY TO NR 16 K K K  
U QSY TO NR 07 U QSY TO NR 07 K  
GI5Q DE 8KRZ K K K  
QSY TO NR 21 U QSY TO NR 21 K  
GI5Q DE 8KRZ K  
QSY TO NR 21 (1129z silent)

7788 kHz, 11-12, 1107 UTC:

99 1211 1900 RMKS 3308 TO 3345 EEEE RMKS 3308 TO 3345 K K  
R GA K  
R R 1W GA = =  
3N6T 7D3U 433T 5T65 UN5T 3AAD A7T6 AD45 ? AD45 TUT5 TTDD (Cont'd)  
AR K  
R QSL 1912 QSL 1912 EEE QSL 1912 K  
R R U 7G GA K  
7G NR 044 CK 99 99 1211 1905 EEEEE  
MSG NR 044 CK 99 99 1211 1912 RMKS 3345 TO 3308 K  
GA K = =  
3N6T 7D3U ...3 ... AADA 7A (Cont'd)  
AR K  
R R R R QSL 1921 K  
R R HR ..23 EEE R EEE R EEE R NR 2030 K  
R R HR NR 2030 K  
NIL SK  
R R NIL SK GB GB GB GB GB GB GB GB GB

5555 kHz, 16-12, 1949 UTC:

66 (Carrier)  
V T AR K 7.55 = 554AA. 73WI 4S 373AAR =  
73G IE = G V (Horrible CW – 1950z)  
O6VV VS I 73 AR = 7V33 T3 74D (1951z)  
= 7W3 AR K  
VVV = = = = T56T 5374 N4DU N437 3U56 UT76 DN56 A (Cont'd)  
73 3455555576  
7D33 457D 7D77 DN7D N7DN 7D (1955z)  
VV = VVV = = T56T 5374 N4DU N437 3U56 UT76 DN56 (Cont'd – repeat of  
above sent groups)  
AR  
VVV VV VV VV VV VV VV QSA2  
VV 4 AS VV = = T56T 5374 N4DU N437 3U56 T AR  
SB SB 2B 2B 2B 2B BS (1958z silent)

6666 kHz, 11-12, 1137 UTC:

30 1211 1920 <30%201211%201920> RMKS 5345 TO 1637 K = =  
545T 474T 564N 5NTA 4U56 TDU ? ND37 NTU4 D743 TA67 TT43 (Cont'd)  
AR K  
AGN 16W K (Both stations on this frequency)  
AGN  
RPT 16W ... AR K  
= ND37 AR K  
R SK  
EEEE HR MSG GA K  
HR MSG GA K  
AGN  
HR MSG GA K K  
R R HR MSG GA K K  
EEEE U U MSG GA K  
U MSG GA K GA  
R QSL 1947 EEEEE QSL 1948 K  
VA

8888 kHz, 11-12, 1131 UTC:

A7A4 5D56 AR K  
NR PT 18 III TO EEEEE  
18w to 19W = =  
5D56 4645 5D56 4D45 ? = =  
5D56 4645 = 5D56 4645 AR K  
R R RPT 3W K EEEE RPT 34W K  
R NPT 34W = TN5A TN5A III K  
R R QSL 1936 K  
R SK R SK

7773 kHz, 12-12, 1150 UTC:

NR GA K  
R NR 0. ... RMKS ... TO .... K  
QSL 19.. K  
R GA K  
NR 047/EX 1950 RMKS .... TO 4.. EEE RMKS ..85 TO 43EEEE TO ... K  
GA K  
= A..BD. AR  
R QSL 19.4  
U GB NA..  
GN NR ..8 CK 99 74 12.. 54 EEE RMKS 4430 TO .48. K  
R GA K  
R = B T  
N... D4 D6N... (Cont'd)  
QSA ? K  
GA K (Cont'd msg)

7777 kHz, 12-12, 1142 UTC:

NR 47/CCK .. EEEE  
NR 47/CCK ... 2 112 ..RMKS 345 TO 1.7.. K  
3UUA UD36 34A. (Cont'd) (This message format normally associated with the  
QV5B family)  
12W = 3U.. AR K  
R .1W = ....  
... AR K  
R GA K

7777 kHz, 17-12, 0025 UTC:

RMKS .... K  
R GA K  
= 3431 N4UA 5NT7 TN.. (Cont'd)  
AR  
2P 1W TO 2W K (Other station on this frequency)  
QSL 0933 0933 K  
QSL 0930 K  
R R QSL?  
QSL ?  
SK  
R R SK GB  
DJBN DE SPM2 K (Silent - 0135z)

7727 kHz, 12-12, 1150 UTC:

R AS  
VV 3RF DE 54TG K  
R QSA 2 IEC = RE3R AR K (Normally exercise related)  
AS  
VV D.I2 DE 54TG K  
R QSA 2 IEC = RE3R AR K  
R AS  
JS.. DE 54TG K  
R QSA 2 IEC = RE3R AR K  
R AS  
VV ..F DE 54TG K  
24RF DE 54TG K  
(Most of the outstations are unreadable)  
R QSA 2 IEC = RE3R AR K  
R AS  
VV 32W. DE 54TG K VV 3UWD DE 54TG K  
QSA 2 IEC = RE3R AR K  
R AS  
VV 34EW DE 54TG VV 35EW DE 54TG EEEE VV 34EW DE 54TG K  
R QSA 2 IEC = RE3R AR K  
R AS  
VV DSK5 DE 54TG K  
AS  
VV D..1 DE 54TG K  
R EE R QSA 2 IEC = RE3R AR K  
R R AS  
HR F NR 5. EEEE  
NR 5853/EX .0 EEEE  
NR 5853/EX 2017 EEE EE RMKS CQ K  
BUD4/V.Q8 AR  
NR 5853/EX 2017 RMKS CQ =  
BUD4/V.Q8 AR  
ALL 1. RLLX. L U 01C R EEE ALU EEEE  
ALL QSL 101.  
HA.G GA  
MSG NR 5854 CK 80 58 12.. 2000 RMKS CQ = =  
346D 53NT (Cont'd)

8888 kHz, 16-12, 0032 UTC:

FF NR 07/EX 01EEE  
CJ1B.BDEEE DC4T.  
VV SS VV CK VVVVV  
3456..35 AA 34567..1234567 AA234565 N3 A.  
/CF345/7/TA345..  
VVVVV 05 .. DN5445345743AU37NNT457DNU3.4444545  
05 05  
VVV 47DU 345 7DU347DNU34.7DNU377R..U3457S.347SS EEE  
VVVV VVV VVV (0041z silent)

7740 kHz, 17-12, 1002 UTC:

CQ CQ CQ DE DP9J DP9J  
HR NIL SK GB (Cont'd)

5555 kHz, 18-12, 1520 UTC:

D4T5 AR  
1W = 6..A AR K  
R 72W = U..6 AR  
13W = 3NA2 AR  
R R  
7G NR 13 CK 115 74 1218 2322 RMKS 1.7. TO 4. AG  
R R  
= 54.A T EEEEE =  
545A .DX4 T.. (Cont'd) AR  
5W = .... AR  
5W = 4.U. AR  
82W = 67ND AR K (Cont'd repeat groups)  
R SK GB

8888 kHz, 13-12, 0107 UTC:

NR RPT 17W K  
AGN NR RPT 17W K  
R 17 BT 3U36 AR K  
NR T NR RPT 18W K  
R 18W BT DATD AR K  
R R RPT 27W K  
R 2 AGN 27W BT UT47 AR K  
NR RPT 28W TO 30W K  
R NU BT 47T7 4A34 457N AR K  
NR QSL 0911 K  
R U 7G GA K  
NR AS AS  
R  
NHR MSG GA K  
R GA  
MSG NR 1220 CK 299 87 1213 0913 RMKS 0856 TO 6786 K  
K R GA GA K  
NR  
4UNDA D3NA D547 T3DA U3DA TD56 4NUT TAN6 TA7A TTA6 TD7N (Cont'd)  
AR K  
N K  
R 1P K NR .. 81 NR RPT IIII K  
R 1P .. (Cont'd)  
QSL 0935 K. QSL 0935 K  
R K  
7G GA K  
7G NR 22 CK 199 87 1213 0936 . RMKS 6786 TO 0856 K  
R GA K R =  
5.4U 6533 N. (Cont'd)

6666 kHz, 16-12, 0047 UTC:

CGSYMRS ..HF..PHFAY GNB RJ SCQH EEE CEEE AR  
VSHDZ RJGYJ EHPLI ESEVS UPAUWT ....  
QSA3 K  
K TR K  
R K  
U VVV = 74II AR  
V335. EEE P EEE AR  
VV = 74II DE 4HP4 HP NR 0 = 3 NR 043 R K  
W OK GA K  
VV VV VV =  
OO7 GB NR 699 CK 95 55 1219 0145 RMKS 2250 TO 1...34 III  
KGA  
KYW AY4EDCTDZ GB..HR QAMIR UNSJ PZW YCCC.. (Cont'd)  
= 74II IOK . FGTAW SXFRN ZNVHU BREKI CHYXI (Cont'd)  
AR R K  
OK U 33 74II III  
7M 7G NR 734 CK 95 55 1214 0 RMKS 7470 TO 72  
NR 7  
7G NR ..0 TT RK RK VVV =  
73I. K  
MSG NR 734 CK 95 55 1214 09E EE RMKS 7149 TO 7470 R K  
VV = =  
N5TU 47D3 A64N A63U 4D7T NT4A U635 7D5N 63T7 A4UD NT75 (Cont'd)  
= DE = =  
ND4T 47UI TE... (Cont'd)  
AR R K (0106z)  
QSL M QSL QSL WA QSL 0909 R K  
VV VV =  
7G NR 734 CK 95 55 1244 092  
VV =  
N5TU 47D3 A64N A63U 4D7T NT4A U635 7D5N (Cont'd, repeats msg)

7740 kHz, 19-12, 0200 UTC:

CQ CQ CQ DE DP9J DP9J  
AS AS  
TLL = TLL LL M.R  
ALL L. TLL LL MTT HR (0211z silent)



6666 kHz, 19-12, 0130 UTC:

A456 DU3N 4AT6 57DU 3UN4 DA67 (Cont'd)  
III III AR  
.. DE GB2 GB2  
NR 3 NR 3 61 NR 3 61  
R R OK  
IRR DE GB2  
NR 3 61 R K OK GB  
VVV ==  
DUN7 53A4 6T73 504D NAU6 NT7D (Cont'd)

7740 kHz, 20-12, 1000 UTC:

V CQ CQ CQ DE DP9J DP9J  
... ALL ALL LL LL TO TO HR HR .SE PSE ALL LL TO HR PSE  
ALL LL TO HR (1011z silent)

7777 kHz, 20-12, 1543 UTC:

657A 4T36 DT.6 T.. (Cont'd)  
AR = = ND7D .... K = = ND7D K  
VV VV I VV = T VFUVV N6AT T3AU 654N 46N. DTNA (Cont'd)  
7DAU 37D AR AR . AR  
TN53 54UT N553 T6AU  
= = N53T  
VV .....  
777 NA65 654N NA3 VVV  
8237 64A5 374D T7A5 (Cont'd)  
777 77 777 77 = =

7777 kHz, 21-12, 1252 UTC:

RMKS 420 EEEEE 4203 TO 4283 TO 4365 TO C798 TO 4203 K  
R GA  
R 1W = =  
A764 45N. 3T67 (Cont'd)  
AGN (1255z silent)

5801 kHz, 21-12, 1600 UTC:

CK 91V19 1221 22 .  
VV HR MSG NR 015/CCK CK 91 19 1221 2100 RMKS 6FH =  
67.. TD3. 6746 7UU3 76DA 3TNT .. (Cont'd)

7740 kHz, 27-12, 0154 UTC:

C OOO CQ  
CQ DP91  
CQ(x3) DE DP91(x2) V (Cont'd)  
HR NIL SK GB HR NIL SK GB (0207z silent)  
Note: Callsign sent was DP91 vice DP9J



5555 kHz, 19-12, 1312 UTC:

USE  
QRO  
U QSJ TO 03 EEEEE U QSJ TO NR 03 K  
Y Y Y U QSY TO NR 03 K  
HR NR 678 K  
QSA QSA?  
U G A T =  
AAES AAES PHONE PHONE USE USE QSY TO NR 05 HR NR 678 HR NR 8 72 720  
(Callsign?)  
IEC = 1267 AR (Normally associated with Exercise traffic)  
HR F GA HR F GA  
MSG NR 01  
MUTI MUTI (Callsign?)  
RPT RPT AGN AGN  
QSB QSB QSL QSL?  
U NR K  
QSA2  
QSW QSW QRW QRW QRQ  
TIME TIME TIME CLS CLS RWT CLS RWT CLS  
RWT RWT EEEEE RPT TIME RPT TIME  
U NR?  
U NR S EEEEE U NR?  
HR MSG GA K  
U QSY TO NR 01 K  
U QSY TO NR 01 R  
QRW 123 AR  
QRW 233 QRW 13 AR  
RCVR RCVR RCVR RNR RNR CCK CCK (This format normally associated with the  
QV4B family)  
U CK U CK UGT UGT COMM = UGT COMM  
VV VV 7UBS HR HR NR 3 AR (Callsign?)  
FM EEEEE MSG MSG PSE CYSW  
MSG PSE CYHW MSG PSE CYHW  
HR RCV R TRUB NW BS PSE NOTE CY HR RCV RTRUB NW BS PSE NOTE CY  
HR RCV RTRUB NW BS PSE NOTE CY GA GA GA  
YR MSG TRY GA YR MSG TRY GA YR MSG TRY GA  
ALL GA ALL GA ALL GA  
YR MSG QRX HR MSG CLS 11 PSE CY YRMSG QRX HR MSG CLS 11 PSE CY YR  
MSG QRX  
HR MSG CLS 11 PSE CY  
RPT PL EEEEE RPT PBL RPT PBL RPT PBL  
NR 1 CK 85 56 1018 1413  
NR 1 CK 85 56 1018 1413  
NR 1 CK 85 56 108 1413  
RPT DATE TIME RPT DATE TIME RPT DATE TIME  
HR CQ MSG A  
HR CQ MSG PSE ALL CY HR CQ MSG PSE ALL CY (This appears to be the control  
station - CY = Copy)  
HR CQ MSG PSE ALL CY  
HR PSE RX X GA AT 1500 COMM HR PSE QRW X GA AT 1500 COMM HR PSE  
QRW B YES  
SK EEEEE  
PSE QRW X GA AT 1500 COMM HR (1347z silent)  
Weak station on frequency briefly, but mostly unreadable

Chinese SIGINT site in Changji

Wullenweber Array

Notes by JPL re the logs dated 13-12 on 5555 kHz:  
5555 kHz is normally the frequency used by QV5B  
Checked //4225 but nothing heard  
I have never seen this message format for M89  
They never seems to QSL for the message being sent

5500 kHz, 13-12, 1317 UTC:

SNOAS WFYRB FCQCV MOASI QTWGL BXOLQ QJFPV ..NWD DKSLU WVLNH  
KQXWL ? ?

42W NW (Using same format as M89 to repeat groups)  
KQXWF IKEM DXKNQ DGCAH AUJMZ TMNOD KLZEW  
GLEWL NKMLI AYLJB AKXAK WFHKM MWFAK ..ZQW YXB. WGAGK EAJOY  
IMXYJ BRKNY CKJFP JFWQA AR W  
GA

NR 14 66 NR 014 76 CK 60 60 =  
..... GSJFB IJRA4 YMZMZ ARZHL HJALS NDJFC AIOCM YRBKJ FWKNN .XUFW  
JZQNG .LYVG OIWDWP YNTSV KYJBG UKIQU ZUQWS ZTQBB RLCRE GVQQT  
STHYV BTBIZ MYRIS WTXVR BTLBT QFVDD PGUSW LTSFJ DZURU BYLKM  
NINMJ PHBTG WVHGX XRBZB RJEVY ZHYFC GMXWC HRDGA TEFXH JFGMN  
LKYFD DQCLI DWWAE EO.HF MVHCR TUAER V? XQLOE TEQHC RCXAV  
AQUSC RFBYD LPJHW MLIGR VEXNA QBJUF ILEIN QMNF R.. VA JEDZI AR  
W

NR NR 015 67 NR 015 67 CK 62 62 =  
STQWZ BCFUI SFNJB NZRFS QWYPX IJBKU KEOA IQABM HDHNZ LJOW  
QHWLE LCHZN SWBDK DHERZ TPQLA APPTL UHWDQ FLRNI RBOFP HJPIW  
CVHZN VVTAD FBYRQ JMJXX QIGGT KAYEY .PPLB HYORQ YAK? YAXCB USQDS  
OSKKF NUHY. HJERK OFUAE IJHMY JLOHY .FCRF OWGUE KZTFH YKDYB FLBIZ  
GJRZN GXFID YUUVN DUCYO XBHRT WKIG. ZKWTJ LLHHH LJNFA QLSBR HLSOJ  
RAOYD BFAHX HOHWI NTCNM PAQIQ ELQLO URBRW KLAIC LEZYK VKAHV AR  
W

NR NR 016 58 NR 016 58 CK 62 62 =  
JHZER SRGJD HIRLK MKCUF UHJXG LQJX ZSEVJ DDTET JEFHV YQAOE SZRLH  
AAJLW  
VWSPL KKSMO PNSUE FK.VV BRZGG YUITD XBNTV MVKFR IILLN PBANG  
SDTYB JWYCF IPZQJ RHKAX IYVHM TQJVZ RIAZA NEUIW PXHKZ KAJYE  
XSFYD LEPWCW RO.I GHYFZ XFHAY HGBPQ HXMQA IOGPD WSFSO HQHWE  
EF? 43W FM IQUDT QCSPA BZTHT HVMUS LUR.S YYGUH BLWYR DYOF  
REYVG THTDA O.DMT OGHNM JBTRP DTJNG KRZPU RCWOM KTYPL  
WIHLZ XBGBM DMXCY ..W  
11W ..RRH ? (Other station on this frequency but mostly unreadable)  
5453W FM O..MT OG.NM JBTRP .TJNG KR.PU RCWOM CT.J.  
2EOW AAJLW  
.3LVWSPL  
19W BT ..V  
223W SNTYB  
23W 14W  
24W .MYCF  
22.W RHCPA (cont'd)  
54W OGHNM  
GA

NR NR 017 56 NR 017 56 CK 6. .O =  
LTA.. DDVTN RMXLQ ITFAN TTIHXV FEAAB VYUWA RQLQO UGOBD  
VORNL ZAYGT QUBJP ARLJV JHQQP WKPIB X.FHF WCZCN PNEHY  
RXRPD UZBIQ AORTL VGJBQ NUNGG MSHRC QOGTO WSNCR ZYBEF  
NUTPP .CJYX TNSUD YDQOG IRWQI DXSYI UJCY YQJJ. CJNZV GLUJM  
HD.DX JMSTW QZNCQ XVKQO DBVHY UPQHT HZLSD TELDA CPBZL  
.KH.Q KNDJC TGDMP RASKG QQTBO YWYGG QFVIT INZEZ L.BNE  
BTWRO VDPGE GGXXO HZWWF WWOVX AR W  
..... 40 QZNCQ

NR NR 018 78 NR 018 78 CK 60 60 =  
PRICD ONFWN VRSVO LCDXI LEKH. RXEII EXGTS CSKJT YUOEY TREFI  
SVOZD AWEEY ZXRTG (Cont'd)

5500 kHz, 13-12, 1508 UTC:

11W KEKIW  
GA (Other station in this frequency but mostly unreadable)  
NR 027 78 NR 027 78 CK 62 62 =  
OCGDY ZQJOO JPJQN HXBPR DORNE SFFLD ? SFFJ. NSYHC MNKZ TROTO  
SRMRS  
WKWCP VUFNO SAKFF PJNGP VQUBS DKSZH GEZKJ LUUWI SFMJP QCKCL  
NWFPP SORHF HARSM MVVVM YGPRK UFKBH OARFO DZBVI GWKGY HNKT  
DEAAD WTGJI TJILQ APINZ XSZFB TGXF DTPDN VJVYV OBSA... ..B HDMLV  
LWODC DUBDZ LCNAR K.ZPF DWZFK ZQBUH .ZBOT KJBCW RELUU VBHYO  
NHKV VSMRX TDXKX GWMFE EBZXD OMPOP HUNJI GNTDY JKZCE KFBV  
HIPCP AR W  
NHKVZ  
GA

NR NR 028 58 NR 028 58 CK 62 62 =  
DXZGB AV TKOVT UMPIN PCCMP PRTID CHNSL QWRPH XRRFH TWULF  
CYMOA UOZZZ JTNUS XZRM TBTXK WNPDM SCEWP AXAII GGJYN EARWD  
ZROHQ ENNSJ EBBGC KWAYC SKNAH TTXC ZUBXP UZGSF FMDZG BFXCL  
SJISU YIKKH GMHCU ACDO. DTWZY JROAW FADHM DRAXK TSKPU CF.DZ  
ULUNM WCFCA QWPWO KQZIP ZBQYV FIMWB TPAYO ZNSXS BHJXH GQKXZ  
XJCC LKRBAT OROZH BHQNM SZLLQ EBFHG RIUS YSPLZ BRDYDE PVPLB  
RHAZU SCWXP QQLJW AR W  
47W ZNSXS  
R 99  
9W TWULF  
? ?  
NN N..N N3.. N.. N3.. (Cont'd)  
NS.. ... NS..... (Cont'd)  
GA

NR 029 77 NR 029 77 CK 62 62 =  
FNOAX .UDJR ..... OMYAL DR.NZ (Cont'd)  
AR W  
15W MKMNL (Repeats groups)  
GA

NR 030 78 NR 030 78 CK 62 62 =  
JYUBR YA.CX QYMZS ZGTNC 4USTG FOTBK VCDXK KPJFN UBDVL (Cont'd)  
GA

NR NR 031 60 NR 031 60 CK 62 62 =  
PBGLA RGGVN CSVSG KOQC N WIDBP BXA.R ODNYR PXHI. KN.OD VMFV  
(Fading – 1612z)

5555 kHz, 13-12,1558 UTC:

05 05 55 55 05 05 (Cont'd)

NR 1566 CK 60 67 1204 1413 = =  
63NT UD45 A7UN 543D 46DA 75T5A ... (Cont'd)  
QSL QSL QSL QSL QSL QSL QSL QSL  
K R R A R .W RPT GA GA GA GA GA GA  
QSA QSA EEEEE 5 =  
4444S 444 AL X5 LLAX5 EEEEE  
HH RLA L DAX RAXEEEEEE L..5 5 SSXX// FFFFFFFF44X BB DE B  
//// 5SR ? VVVVV 7E 4 U ??

6666 kHz, 15-12, 0207 UTC:

75AD 75N6 D4UA 64AU 5UN6 (Cont'd)  
III = N7A3 5T6A U437 UN3T UD7T 73D6 (Cont'd)  
AR K  
R R R RPT 9W = TA7T III K  
NRPT 19W BT 6784 III K  
RR RPT 09W = TTT7 III K  
R AGN K  
R AGN K  
R R (0220z silent)



## **M97**

### **Vietnamese numbers**

**Frequency: 10375 kHz**  
**Mode: Morse**

The following reports were penned by Token:

I have recorded this frequency at the correct time almost every day for the last 4 years. Unfortunately, while I have the recordings I have not been logging the station well. I have attempted to correct that, and have the last year worth of transmissions in my log here now. Between 17 November, 2012, and 01 December, 2013, there have been 51 transmissions.

As normal for this station (V30 has the same habit) during the reported time period the start time for the first transmission of the day has gotten earlier and earlier each day of operation, normally by a few seconds per week. For example on 25 October the start time for the first message was 1454:11z. Normally when the start time gets to about 1454:00z the operators appear to reset the clock, bringing the start back to about 1500:00z. The next transmission occurred on 27 November, and the start time was 1459:38z, indicating they had reset the clock.

#### **M97 (all apparent transmissions starting 1 June, 2013, logs and recordings before that date available if desired)**

10375 kHz, 1455z, 25 June, 2013, (SD 81, SN70, message x3), Token, Tue  
10375 kHz, 1455z, 09 July, 2013, (SD 88, SN 45, message x3), Token, Tue  
10375 kHz, 1455z, 15 July, 2013, (SD 88, SN 45, message x3), Token, Mon  
10375 kHz, 1455z, 17 July, 2013, (SD 83, SN 40, message x3), Token, Wed  
10375 kHz, 1455z, 25 July, 2013, (SD 83, SN 40, message x3), Token, Thu  
10375 kHz, 1455z, 31 July, 2013, (SD 83, SN 40, message x3), Token, Wed  
10375 kHz, 1454z, 09 August, 2013, (SD 84, SN 58, message x3), Token, Fri  
10375 kHz, 1454z, 13 August, 2013, (SD 84, SN 58, message x3), Token, Tue  
10375 kHz, 1454z, 27 August, 2013, (SD 84, SN 58, message x3), Token, Tue  
10375 kHz, 1454z, 28 August, 2013, (SD 84, SN 58, message x3), Token, Wed  
10375 kHz, 1454z, 25 October, 2013, (SD 83, SN 40, message x3), Token, Fri  
10375 kHz, 1500z, 27 November, 2013, (SD 84, SN 58, message x3), Token, Wed  
10375 kHz, 1500z, 28 November, 2013, (SD 84, SN 58, message x3), Token, Thu

Note that the 25 October transmission stepped back to SD 83 when the station had been using SD 84. I double checked that and it is indeed SD 83 SN40 that was sent that day. The next transmission (27 November, 2013) returned to SD84.

T! Mojave Desert, California, USA

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All,

This is a little early in the month, since there are 2 more days for possible M97 and V30 transmission in the month, but I wanted to get this out this weekend. If M97 or V30 transmit Monday or Tuesday I will add those logs in a separate post.

M97 started the month of December slowly, with no transmissions from the beginning of the month until December 19. From Dec 19 until today (December 29) there have been 6 transmission. All have been SD 84 and SN 58, the same message it has been sending since August 9 (with the exception of October 25, 2013, for some reason it sent SD 83 SN 40 that day). As normal the start times have been moving forward (earlier) by about 1.3 seconds per day.

#### **M97 (all transmissions this month, to December 29, 2013)**

10375 kHz, 1459z, 19 December, 2013, (SD 84, SN 58, message x3), Token, Thu  
10375 kHz, 1459z, 20 December, 2013, (SD 84, SN 58, message x3), Token, Fri  
10375 kHz, 1459z, 23 December, 2013, (SD 84, SN 58, message x3), Token, Mon  
10375 kHz, 1459z, 24 December, 2013, (SD 84, SN 58, message x3), Token, Tue  
10375 kHz, 1459z, 26 December, 2013, (SD 84, SN 58, message x3), Token, Thu  
10375 kHz, 1459z, 27 December, 2013, (SD 84, SN 58, message x3), Token, Fri

T! Mojave Desert, California, USA

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## VARIOUS MODES



**HM01**

### **Dirección General de Inteligencia**

Logs provided by several dxers (see Logs Section) but my very special thanks goes to Don Schimmel and Shawn Fahrer for their many contributions.

#### **Notes:**

24 hours cycle start at 1600 UTC when the group change takes place

#### **30-12 (Don)**

1. During the 1700 and 1800 transmissions two messages were transmitted on top of each other
2. 11635 kHz, 2100 UTC: 56792 03633 37674 18655 62113 66163. This is odd because the group change usually took place on the 1600 sked. Also note the final digit in each group. It would appear the groups had been previously transmitted. One group twice, one group 5 times, one group 4 times and three groups 3 times??

#### **31-12 (Shawn)**

Almost ALL of "the rules" were broken today:

1. None of these new numbers ends with a "1"
2. We have a sequence featuring a "9"
3. The broadcast was surprisingly short (25 minutes per segment instead of the usual 27 minutes -- timed based on the second segment of the 0700 UTC broadcast, which ran from 0727 UTC - 0752 UTC after a nearly 4 minute break from the end of the first transmission)

Date	UTC	Day	Freq.	Remarks
30-11-2013	2300	Sat	17540	88606 56512 46771 37453 27805 71261
1-12-2013	1629	Sun	11435	88606 etc
1-12-2013	1705	Sun	11530	Late start
1-12-2013	1803	Sun	11635	88606 etc
1-12-2013	2100	Sun	11635	88606 etc
1-12-2013	2216	Sun	10715	88606 etc
1-12-2013	2300	Sun	11530	88606 56512 46771 37453 27805 71261
1-12-2013	2334	Sun	11530	88606 etc
2-12-2013	1623	Mon	11435	88606 etc
2-12-2013	1714	Mon	11530	88606 etc
2-12-2013	1758	Mon	11635	88606 etc
2-12-2013	2058	Mon	11635	88606 etc
2-12-2013	2209	Mon	10715	88606 etc
2-12-2013	2258	Mon	11530	88606 etc
3-12-2013	1623	Tue	11435	88606 56512 46771 3753 2780 71261
3-12-2013	1711	Tue	11530	88606 etc
3-12-2013	1759	Tue	11635	88606 etc
3-12-2013	2102	Tue	16180	88606 etc
3-12-2013	2316	Tue	17540	Sig there but weak and very bad fading
4-12-2013	1736	Wed	11530	88606 56512 46771 37453 27805 71261
4-12-2013	1758	Wed	11635	88606 56512 46771 37453 27805 71261
4-12-2013	2102	Wed	11635	88606 56512 46771 37453 27805 71261
4-12-2013	2200	Wed	10715	88606 56512 46771 37453 27805 71261
4-12-2013	2331	Wed	11530	88606 56512 46771 37453 27805 71261
5-12-2013	1729	Thu	11530	88606 56512 46771 37453 27805 71261
5-12-2013	1807	Thu	11635	88606 56512 46771 37453 27805 71261

Date	UTC	Day	Freq.	Remarks
5-12-2013	2116	Thu	16180	Repeats uno uno uno and M08a is also running. M08a stops at 2117. New groups are 56801 22574 15441 50182 08444 51835
5-12-2013	2231	Thu	17480	56801 22574 15441 50182 08444 51835
5-12-2013	2355	Thu	17540	56801 22574 15441 50182 08444 51835
6-12-2013	0500	Fri	5855	22574 15441 50182 08444 51835 83881
6-12-2013	0700	Fri	9330	22574 15441 50182 08444 51835 83881
6-12-2013	1827	Fri	11635	Two different sets of groups being transmitted at the same time
6-12-2013	2219	Fri	10715	66205 80854 83382 40842 04242 44654
7-12-2013	1600	Sat	11435	Repeat of September 2013
7-12-2013	1700	Sat	11530	Repeat of September 2013
7-12-2013	1800	Sat	11635	Repeat of September 2013
7-12-2013	2100	Sat	16180	Repeat of September 2013
7-12-2013	2200	Sat	17540	Repeat of September 2013
7-12-2013	2300	Sat	17540	51835 56801 22574 15441 50182 08444
7-12-2013	2300	Sat	17540	Repeat of September 2013
8-12-2013	0700	Sun	9330	22574 15441 50182 08444 51835 56801
8-12-2013	0824	Sun	9065	56801 22574 15441 50182 08444 51835
8-12-2013	1639	Sun	11435	17684 73662 05664 77332 28332 02635
8-12-2013	1704	Sun	11530	17684 etc
8-12-2013	1759	Sun	11635	17684 etc
8-12-2013	2151	Sun	11635	17684 etc
8-12-2013	2200	Sun	10715	17684 etc
8-12-2013	2301	Sun	11530	17684 etc
9-12-2013	0700	Mon	9330	28332 02635 07684 73662 05664 77332
9-12-2013	0903	Mon	9240	17684 73662 05664 77332 28332 02635
9-12-2013	1629	Mon	11435	17684 73662 05664 77332 28332 02635
9-12-2013	1718	Mon	11530	17684 73662 05664 77332 28332 02635
9-12-2013	1805	Mon	11530	17684 73662 05664 77332 28332 02635 (Should be on 11635; switched to 11635 at 1812 UTC)
9-12-2013	1812	Mon	11635	17684 73662 05664 77332 28332 02635 (Came from 11530 kHz)
9-12-2013	2100	Mon	11635	17684 73662 05664 77332 28332 02635
9-12-2013	2206	Mon	10715	17684 73662 05664 77332 28332 02635
9-12-2013	2315	Mon	11530	17684 73662 05664 77332 28332 02635
10-12-2013	1632	Tue	11435	10755 48641 04062 15067 88344 46447
10-12-2013	1730	Tue	11530	10755 48641 04062 15067 88344 46447
10-12-2013	1758	Tue	11635	10755 48641 04062 15067 88344 46447
10-12-2013	2114	Tue	16180	10755 48641 04062 15067 88344 46447
10-12-2013	2155	Tue	17480	one group with DIGTRX burst, then back to only carrier
10-12-2013	2157	Tue	17480	Begin SS/YL callup 10755 48641 04062 15067 88344 46447, into mixed voice & RDFT at 2202 cut 2254
10-12-2013	2219	Tue	17540	10755 48641 04062 15067 88344 46447
10-12-2013	2254	Tue	17480	10755 48641 04062 15067 88344 46447
10-12-2013	2259	Tue	17540	10755 48641 04062 15067 88344 46447
10-12-2013	2259	Tue	17540	In progress, same callup, low audio, nothing on 11530
11-12-2013	1753	Wed	11530	10756 48642 04063 05171 88345 45631
11-12-2013	1759	Wed	11635	10756 48642 04063 05171 88345 45631
11-12-2013	2106	Wed	11635	10756 48642 04063 05171 88345 45631
11-12-2013	2231	Wed	10715	10756 48642 04063 05171 88345 45631
12-12-2013	1622	Thu	11435	56351 48643 04064 05172 88346 45632
12-12-2013	1659	Thu	11530	56351 48643 04064 05172 88346 45632
12-12-2013	1846	Thu	11635	56351 48643 04064 05172 88346 45632



Date	UTC	Day	Freq.	Remarks
12-12-2013	2238	Thu	17480	56351 48643 04064 05172 88346 45632
12-12-2013	2259	Thu	17540	56351 48643 04064 05172 88346 45632
12-12-2013	2300	Thu	17540	56351 48643 04064 05172 88346 45632
13-12-2013	1605	Fri	11435	56352 48644 04065 05173 88347 45633
13-12-2013	1659	Fri	11530	56352 48644 04065 05173 88347 45633
13-12-2013	1759	Fri	11635	56352 48644 04065 05173 88347 45633
13-12-2013	2102	Fri	11635	56352 48644 04065 05173 88347 45633
13-12-2013	2200	Fri	10715	56352 48644 04065 05173 88347 45633
13-12-2013	2202	Fri	10715	56352 48644 04065 05173 88347 45633
13-12-2013	2300	Fri	11530	56352 48644 04065 05173 88347 45633
14-12-2013	1604	Sat	11435	56353 48645 32751 05174 10651 45634
14-12-2013	1703	Sat	11530	56353 48645 32751 05174 10651 45634
14-12-2013	1801	Sat	11635	56353 48645 32751 05174 10651 45634. Wrong freq at 1759 UTC. Changed to 11635 kHz at 1801 UTC
14-12-2013	2059	Sat	16180	56353 48645 32751 05174 10651 45634
14-12-2013	2223	Sat	17480	56353 48645 32751 05174 10651 45634
14-12-2013	2259	Sat	17540	56353 48645 32751 05174 10651 45634
15-12-2013	0615	Sun	11435	43645 32751 05174 10651 45634 56353
15-12-2013	0700	Sun	9330	43645 32751 05174 10651 45634 56353
15-12-2013	1607	Sun	11435	56354 48646 32752 05175 10652 45635
15-12-2013	1700	Sun	11530	56354 48646 32752 05175 10652 45635
15-12-2013	1801	Sun	11635	56354 48646 32752 05175 10652 45635
15-12-2013	2300	Sun	11530	56354 48646 32752 05175 10652 45635
16-12-2013	0615	Mon	11435	56354 48646 32752 05175 10652 45635
16-12-2013	0704	Mon	9330	Weak carrier but no transmission heard
16-12-2013	1050	Mon	5855	5FGs in Spanish + RDFT data //9155
16-12-2013	1050	Mon	9155	5FGs in Spanish + RDFT data //5855
16-12-2013	1609	Mon	11435	56355 26301 32753 05176 10653 45636
16-12-2013	1706	Mon	11530	56355 26301 32753 05176 10653 45636
16-12-2013	2107	Mon	11635	56355 26301 32753 05176 10653 45636
16-12-2013	2200	Mon	10715	56355 26301 32753 05176 10653 45636
16-12-2013	2224	Mon	10715	56355 26301 32753 05176 10653 45636
17-12-2013	0846	Tue	11635	56335 48647 32752 05176 10653 45636
17-12-2013	1800	Tue	11635	56356 26302 32754 05177 10654 45637
17-12-2013	1850	Tue	11635	56356 26302 32754 05177 10654 45637
17-12-2013	2100	Tue	16180	56356 26302 32754 05177 10654 45637
17-12-2013	2159	Tue	17480	56356 26302 32754 05177 10654 45637
17-12-2013	2259	Tue	17540	56356 26302 32754 05177 10654 45637
18-12-2013	1610	Wed	11435	56357 26303 32755 05178 10655 26051
18-12-2013	1725	Wed	11530	56357 26303 32755 05178 10655 26051
18-12-2013	1800	Wed	11635	56357 26303 32755 05178 10655 26051
18-12-2013	2100	Wed	11635	56357 26303 32755 05178 10655 26051
18-12-2013	2201	Wed	10715	56357 26303 32755 05178 10655 26051
18-12-2013	2349	Wed	11530	56357 26303 32755 05178 10655 26051
19-12-2013	0525	Thu	12180	i.p. 56357 26303 32755 05178 10655 27051 (replacing the otherwise expected 45637)
19-12-2013	1050	Thu	9155	i.p.
19-12-2013	1604	Thu	11435	56358 26304 12001 02451 10656 26052
19-12-2013	1711	Thu	11530	56358 26304 12001 02451 10656 26052
19-12-2013	1855	Thu	11635	56358 26304 12001 02451 10656 26052
19-12-2013	2200	Thu	17480	56358 26304 12001 02451 10656 26052

Date	UTC	Day	Freq.	Remarks
20-12-2013	0610	Fri	11435	New sequence 56358 26304 12001 02451 10656 26052
20-12-2013	0700	Fri	9330	56358 26304 12001 02451 10656 26052
20-12-2013	1609	Fri	11435	64581 26053 12002 02452 10657 26053
20-12-2013	2059	Fri	11635	64581 26053 12002 02452 10657 26053
20-12-2013	2201	Fri	10715	64581 26053 12002 02452 10657 26053
20-12-2013	2300	Fri	11530	Starting again on 10715 at 2300 UTC. Shifts to 11530 kHz with 64581 etc at 2302 UTC
20-12-2013	2302	Fri	11530	04581 etc
21-12-2013	1634	Sat	11435	64582 26306 12003 02453 10658 26054
21-12-2013	1700	Sat	11435	Starts again on 11435 at 1700 instead of 11530 kHz. Stops at 1756
21-12-2013	1759	Sat	11635	64582 26306 12003 02453 10658 26054
21-12-2013	2113	Sat	16180	64582 26306 12003 02453 10658 26054
21-12-2013	2159	Sat	17540	64582 26306 12003 02453 10658 26054
21-12-2013	2300	Sat	17540	64582 26306 12003 02453 10658 26054
22-12-2013	0500	Sun	5855	64582 26306 12003 02453 10658 26054
22-12-2013	1617	Sun	11435	64583 26307 12004 02454 23531 26055
22-12-2013	1659	Sun	11530	64583 26307 12004 02454 23531 26055
22-12-2013	1758	Sun	11635	64583 26307 12004 02454 23531 26055
22-12-2013	2104	Sun	11635	64583 26307 12004 02454 23531 26055
22-12-2013	2250	Sun	10715	64583 26307 12004 02454 23531 26055
22-12-2013	2258	Sun	11530	64583 26307 12004 02454 23531 26055
23-12-2013	0508	Mon	5855	64583 26307 12004 02454 23531 26055
23-12-2013	0600	Mon	10070	open carrier at 0558 UTC, no 'Atencion'. Spanish number sequence abruptly began; repeated 8 times //11435
23-12-2013	0600	Mon	11435	open carrier at 0558 UTC, no 'Atencion'. Spanish number sequence abruptly began; repeated 8 times //10700
23-12-2013	1000	Mon	9240	
23-12-2013	2103	Mon	11635	64584 26308 12005 02455 23532 26056
23-12-2013	2159	Mon	10715	64584 26308 12005 02455 23532 26056
23-12-2013	2302	Mon	11530	64584 26308 12005 02455 23532 26056
24-12-2013	1606	Tue	11435	64585 63501 12006 16031 23533 26057
24-12-2013	1704	Tue	11530	64585 63501 12006 16031 23533 26057
24-12-2013	1758	Tue	11635	64585 63501 12006 16031 23533 26057
24-12-2013	1800	Tue	11635	64585 63501 12006 02456 23533 26057
24-12-2013	1801	Tue	11635	64585 63501 12006 16031 23533 26057
24-12-2013	2051	Tue	16180	64585 63501 12006 16031 23533 26057
24-12-2013	2211	Tue	17480	64585 63501 12006 16031 23533 26057
24-12-2013	2300	Tue	17480	64585 63501 12006 16031 23533 26057
25-12-2013	0558	Wed	11435	64585 63501 12006 16031 23533 26057
25-12-2013	1636	Wed	11435	64586 63502 12007 16032 23534 26058
25-12-2013	1702	Wed	11530	64586 63502 12007 16032 23534 26058
25-12-2013	1807	Wed	11635	64586 63502 12007 16032 23534 26058
26-12-2013	0700	Thu	13435	64586 63502 12007 16032 23504 26058
26-12-2013	1636	Thu	11435	64587 63503 12008 16033 23535 48831 at 261636
26-12-2013	1700	Thu	11530	64587 63503 12008 16033 23535 48831 at 261636
26-12-2013	1758	Thu	11635	64587 63503 12008 16033 23535 48831 at 261636
26-12-2013	2102	Thu	16180	64587 63503 12008 16033 23535 48831 at 261636
26-12-2013	2210	Thu	17480	64587 63503 12008 16033 23535 48831 at 261636
26-12-2013	2258	Thu	17540	64587 63503 12008 16033 23535 48831 at 261636
27-12-2013	0458	Fri	5855	64587 63503 12008 16033 23535 48831
27-12-2013	1029	Fri	9155	i.p.
27-12-2013	1721	Fri	11530	80581 63504 70471 16034 61781 48832

Date	UTC	Day	Freq.	Remarks
27-12-2013	1821	Fri	11635	80581 63504 70471 16034 61781 48832
27-12-2013	2102	Fri	11635	80581 63504 70471 16034 61781 48832
27-12-2013	2158	Fri	10715	80581 63504 70471 16034 61781 48832
27-12-2013	2300	Fri	10100	80581 63504 70471 16034 61781 48832
27-12-2013	2300	Fri	11530	80581 63504 70471 16034 61781 48832
27-12-2013	2304	Fri	11530	80581 63504 70471 16034 61781 48832
28-12-2013	0723	Sat	13435	80581 63504 70471 16034 61781 48832
28-12-2013	1605	Sat	11435	80582 63505 70472 16035 61782 48833
28-12-2013	1659	Sat	11530	80582 63505 70472 16035 61782 48833
28-12-2013	1800	Sat	11635	80582 63505 70472 16035 61782 48833
28-12-2013	2059	Sat	16180	80582 63505 70472 16035 61782 48833
28-12-2013	2200	Sat	17480	80582 63505 70472 16035 61782 48833
28-12-2013	2312	Sat	17540	Carrier but no sigs
29-12-2013	0637	Sun	11435	
29-12-2013	0700	Sun	9330	80582 63505 70472 16035 61782 48833
29-12-2013	1605	Sun	11435	80583 63506 70473 16036 61783 48834 Still on 11435 at 1659. Shifts to 11530 at 1703 UTC
29-12-2013	1703	Sun	11530	80583 63506 70473 16036 61783 48834
29-12-2013	1800	Sun	11635	80583 63506 70473 16036 61783 48834
29-12-2013	2100	Sun	11635	80583 63506 70473 16036 61783 48834
29-12-2013	2159	Sun	10715	80583 63506 70473 16036 61783 48834
29-12-2013	2258	Sun	11530	80583 63506 70473 16036 61783 48834
30-12-2013	0500	Mon	5855	80583 63506 70473 16036 61783 48834. Started new sked at 0558 but switched after 15 secs to another freq
30-12-2013	0600	Mon	11435	Barely readable
30-12-2013	0700	Mon	9330	80583 63506 70473 16036 61783 48834
30-12-2013	0730	Mon	9330	i.p.
30-12-2013	1652	Mon	11435	Tuned in just as she stopped
30-12-2013	1658	Mon	11530	80584 63507 70474 44781 61784 48835. At 1659 two messages were sent on top of each other
30-12-2013	1718	Mon	11530	Two messages on top of each other
30-12-2013	1758	Mon	11635	80584 63507 70474 44781 61784 48835. Groups were doubled up for portion of transmission
30-12-2013	1800	Mon	11635	Two messages on top of each other
30-12-2013	2100	Mon	11635	56792 03633 37674 18655 62113 66163. This is odd because the group change usually took place on the 1600 sked. Also note the final digit in each group. It would appear the groups had been previously transmitted. One group twice, one group 5 times, one group 4 times and three groups 3 times??
30-12-2013	2100	Mon	11635	Msg
30-12-2013	2158	Mon	10715	56792 03633 37674 18655 62113 66163
30-12-2013	2300	Mon	11530	56792 03633 37674 18655 62113 66163
31-12-2013	0700	Tue	13435	56792 03633 37674 18655 62113 66163
31-12-2013	1607	Tue	11435	56792 03633 37674 18655 62113 66163
31-12-2013	1708	Tue	11530	56792 03633 37674 18655 62113 66163
31-12-2013	1758	Tue	11530	56792 03633 37674 18655 62113 66163 Should be on 11635
31-12-2013	1808	Tue	11635	56792 03633 37674 18655 62113 66163 Shifted here from 11530 at 1808 UTC
31-12-2013	2119	Tue	16180	56792 03633 37674 18655 62113 66163
31-12-2013	2207	Tue	17480	56792 03633 37674 18655 62113 66163
31-12-2013	2303	Tue	17540	56792 03633 37674 18655 62113 66163

## M42 & X06



**Modes:**  
Various digital modes, CW,  
Tones (Мазелка / Mazielka)

## Russian Government & Intelligence



date	UTC	day	Freq.	remarks	mode
2-12-2013	0150	Mon	16320	Russian Intel. Messages on links 13183, 13366, 57406, 08250, 41338	FSK 200/1000
2-12-2013	0230	Mon	14880	Russian Intel. Messages on links 13366, 41018, 40990	FSK 200/1000
3-12-2013	0150	Tue	16320	Russian Intel. Messages on links 13366, 41018, 57402, 41020, 41022	FSK 200/1000
3-12-2013	0230	Tue	14880	Russian Intel. Messages on links 40962, 57470, 08226, 00048	FSK 200/1000
5-12-2013	2000	Thu	5784	Russian intel	FSK 200/500
5-12-2013	2010	Thu	4577	Russian intel	FSK 200/500
5-12-2013	2020	Thu	3863	Russian intel	FSK 200/500
6-12-2013	0150	Fri	16320	Russian Intel. Messages on links 41082,44182,57354	FSK 200/1000
6-12-2013	0230	Fri	14880	Russian Intel. Messages on links 41018,19690,32830	FSK 200/1000
6-12-2013	1308	Fri	16150	Russian diplo, tfc on link 10042	CROWD-36
7-12-2013	1300	Sat	20562	Russian intel	FSK 200/500
7-12-2013	1310	Sat	18193	Russian intel	FSK 200/500
7-12-2013	1320	Sat	16107	Russian intel	FSK 200/500
9-12-2013	0150	Mon	16320	Russian Intel. Messages on links 57445, 00127, 57403	FSK 200/1000
9-12-2013	0230	Mon	14880	Russian Intel. Messages on links 01256, 16680, 50312	FSK 200/1000
10-12-2013	0150	Tue	16320	Russian Intel. Messages on links 13876,32296,55451	FSK 200/1000
10-12-2013	0230	Tue	14880	Russian Intel. Messages on link 00000	FSK 200/1000
11-12-2013	0150	Wed	16320	Russian Intel. Messages on links 30903, 41017, 62288	FSK 200/1000
11-12-2013	0230	Wed	14880	Russian Intel. Messages on links 12308, 04098, 41018, 39946, 16492, 04232	FSK 200/1000
12-12-2013	0150	Thu	16320	Russian Intel. Messages on links 41018, 12543, 20509, 41019	FSK 200/1000
12-12-2013	0230	Thu	14880	Russian Intel. Messages on links 32794, 61666, 01421, 41018, 57717, 08250, 04353	FSK 200/1000
13-12-2013	0150	Fri	16320	Russian Intel. Messages on links 61503, 41018, 20581	FSK 200/1000
13-12-2013	0230	Fri	14880	Russian Intel. Messages on links 13360, 41018, 41019	FSK 200/1000
16-12-2013	0150	Mon	16320	Russian Intel. Messages on links 13334, 41018, 31752, 32826, 63546, 41016	FSK 200/1000
16-12-2013	0230	Mon	14880	Russian Intel. Messages on links 61562, 41018	FSK 200/1000
16-12-2013	1250	Mon	19140	Russian diplo	CROWD-36
16-12-2013	1350	Mon	19880	Russian diplo	CROWD-36
16-12-2013	1353	Mon	14632	Russian diplo	CROWD-36
17-12-2013	0150	Tue	16320	Russian Intel. Messages on links 05174, 62467, 41006, 00000, 58390	FSK 200/1000
17-12-2013	0230	Tue	14880	Russian Intel. Messages on links 22679, 16044, 41018, 34828, 62471, 41082, 53122, 53141, 39750	FSK 200/1000
18-12-2013	0150	Wed	16320	Russian Intel. Messages on links 29734, 61631, 61754, 49183	FSK 200/1000
19-12-2013	0150	Thu	16320	Russian Intel. Messages on links 13374, 13318, 41018, 22998, 18591, 61822, 20359, 61403	FSK 200/1000

date	UTC	day	Freq.	remarks	mode
19-12-2013	0230	Thu	14880	Russian Intel. Messages on links 13366, 41018, 40992, 41072, 40986	FSK 200/1000
19-12-2013	0801	Thu	18277	Russian diplo	CROWD-36
20-12-2013	0150	Fri	16320	Russian Intel. Messages on links 13503, 08176, 41018, 44221	FSK 200/1000
20-12-2013	0230	Fri	14880	Russian Intel. Messages on links 05170, 41018, 40986	FSK 200/1000
22-12-2013	0809	Sun	7526	Russian Gov/Intel. Multifigure groups like 070903063966478109 =83313	Baudot 200/500
23-12-2013	0150	Mon	16320	Russian Intel. Messages on link 32824	FSK 200/1000
23-12-2013	0230	Mon	14880	Russian Intel. Messages on links 12024, 41082, 51992, 13366, 41018, 41016	FSK 200/1000
24-12-2013	0150	Tue	16320	Russian Intel. Messages on links 41018, 59252, 43066	FSK 200/1000
24-12-2013	0230	Tue	14880	Russian Intel. Messages on links 64673, 14653, 62280, 14644, 61556	FSK 200/1000
25-12-2013	0150	Wed	16320	Russian Intel. Messages on links 03296, 61503, 05012	FSK 200/1000
25-12-2013	0230	Wed	14880	Russian Intel. Messages on links 13366, 41016, 41018, 32826	FSK 200/1000
26-12-2013	0150	Thu	16320	Russian Intel. Messages on links 13366, 41018, 59509, 57727, 41023, 41087	FSK 200/1000
26-12-2013	0230	Thu	14880	Russian Intel. Messages on links 13366, 41016, 41018, 32826	FSK 200/1000
27-12-2013	0150	Fri	16320	Russian Intel. Messages on links 41020, 41082, 43124	FSK 200/1000
27-12-2013	0230	Fri	14880	Russian Intel. Messages on links 41018, 57460, 43070, 42603	FSK 200/1000
30-12-2013	0150	Mon	16320	Russian Intel. Messages on links 57470, 57402, 32826	FSK 200/1000
30-12-2013	0230	Mon	14880	Russian Intel. Messages on links 41016, 41022, 41018	FSK 200/1000
30-12-2013	0755	Mon	14641	Russian diplo	CROWD-36 + OFDM
30-12-2013	0810	Mon	18277	Russian diplo	CROWD-36
30-12-2013	1057	Mon	18277	Russian diplo	CROWD-36
31-12-2013	0150	Tue	16320	Russian Intel. Messages on links 41018, 32103, 28519	FSK 200/1000
31-12-2013	0230	Tue	14880	Russian Intel. Messages on links 57658, 57402, 41018, 60548, 57402, 41082	FSK 200/1000
31-12-2013	1404	Tue	17446	Russian Intel. Msg on link 32799	FSK 200/1000
31-12-2013	1416	Tue	15874	Russian Intel. Msg on link 32799	FSK 200/1000

**X06:** 19-12, 0816 UTC, 14488 kHz, Mazielka. Sequence: 162543

#### 16320 kHz, 02-12, 0150 UTC, FSK 200/1000

Link ID 13183	Msg Number 255	Msg Type 13366	Group Count 0	17251 00000 04095 04095 65535 65535 65535 65535
Link ID 13366	Msg Number 000	Msg Type 13366	Group Count 0	17251 00000 00000 03504 15371 03251 00000 01207
Link ID 57406	Msg Number 050	Msg Type 07145	Group Count 245	32768 03511 49794 03761 21686 02337 17713 42498
Link ID 08250	Msg Number 050	Msg Type 08169	Group Count 245	34816 03506 33414 03761 62470 02339 17425 42514
Link ID 41338	Msg Number 114	Msg Type 07145	Group Count 245	32768 03510 34710 03825 21686 02403 17713 42514

#### 14880 kHz, 02-12, 0230 UTC, FSK 200/1000

Link ID 13366	Msg Number 000	Msg Type 01078	Group Count 0	00867 00000 00000 03504 15371 03251 00000 01207
Link ID 41018	Msg Number 050	Msg Type 07145	Group Count 245	36864 07602 33410 03761 21686 02307 17713 42514
Link ID 40990	Msg Number 050	Msg Type 07145	Group Count) 244	00128 03507 32898 01713 21648 02305 16384 41472

#### 16320 kHz, 03-12, 0150 UTC, FSK 200/1000

Link ID 13366	Msg Number 000	Msg Type 13366	Group Count 0	17251 00000 00000 03504 15371 03251 00000 01207
Link ID 41018	Msg Number 055	Msg Type 07145	Group Count 245	32768 45121 33082 15878 21686 03077 11039 25150
Link ID 57402	Msg Number 055	Msg Type 04585	Group Count 245	32768 32841 33086 15878 21758 03079 12095 26495
Link ID 41020	Msg Number 127	Msg Type 07145	Group Count 245	32768 45121 33140 15884 43372 02315 17967 50541
Link ID 41022	Msg Number 063	Msg Type 07145	Group Count 245	32768 45121 33086 15886 56822 03333 28447 59198
Link ID 41018	Msg Number 063	Msg Type 06889	Group Count 245	32768 45121 33082 15878 21686 03077 11039 25150



**14880 kHz, 03-12, 0230 UTC, FSK 200/1000**

Link ID 40962 Msg Number 001 Msg Type 07137 Group Count 245  
 Link ID 57470 Msg Number 127 Msg Type 07145 Group Count 181  
 Link ID 08226 Msg Number 039 Msg Type 07145 Group Count 245  
 Link ID 00048 Msg Number 148 Msg Type 51426 Group Count 4

32768 45057 33082 15878 21686 03072 11029 16948  
 32768 47169 33663 32286 29874 03072 11029 25102  
 32768 45121 00298 01030 21686 01028 11039 25110  
 06886 52336 11264 01536 00428 00281 03586 01324

**16320 kHz, 06-12, 0150 UTC, FSK 200/1000**

Link ID 41082 Msg Number 070 Msg Type 06985 Group Count 245  
 Link ID 44182 Msg Number 144 Msg Type 44541 Group Count 164  
 Link ID 57354 Msg Number 006 Msg Type 04473 Group Count 242

32768 49697 08188 18788 21694 03231 62459 19681  
 29582 48276 17504 38480 42861 18709 34932 38849  
 32768 53025 07804 18788 20660 03223 29689 03233

**14880 kHz, 06-12, 0230 UTC, FSK 200/1000**

Link ID 41018 Msg Number 070 Msg Type 07144 Group Count 245  
 Link ID 41018 Msg Number 070 Msg Type 07147 Group Count 245  
 Link ID 19690 Msg Number 176 Msg Type 27872 Group Count 60  
 Link ID 41018 Msg Number 070 Msg Type 07145 Group Count 245  
 Link ID 32830 Msg Number 071 Msg Type 06976 Group Count 240  
 Link ID 41018 Msg Number 198 Msg Type 07145 Group Count 245

32768 52737 07804 02404 21682 03219 29657 19584  
 32768 52769 07804 18788 21686 03223 29689 19617  
 24576 12685 52880 61744 13264 38880 10860 40480  
 32768 52769 03708 18788 20482 00131 28920 00128  
 32768 50688 03708 02404 21686 02711 29689 19617  
 32768 52768 07804 22884 21686 03223 29616 19616

**16320 kHz, 09-12, 0150 UTC, FSK 200/1000**

Link ID 57445 Msg Number 151 Msg Type 07145 Group Count 245  
 Link ID 00127 Msg Number 203 Msg Type 02145 Group Count 193  
 Link ID 57403 Msg Number 079 Msg Type 07151 Group Count 247

32768 05027 34308 50804 43116 02956 23070 52195  
 32768 00385 34446 17010 21758 01484 11550 58867  
 32785 05115 34446 50742 64759 01990 28423 58865

**14880 kHz, 09-12, 0230 UTC, FSK 200/1000**

Link ID 01256 Msg Number 004 Msg Type 20680 Group Count 68  
 Link ID 16680 Msg Number 000 Msg Type 04328 Group Count 12  
 Link ID 50312 Msg Number 038 Msg Type 17541 Group Count 77

13568 42496 00016 17441 02803 08857 47669 21421  
 09472 42880 09232 02578 02064 08368 32817 00008  
 23400 31745 02176 16407 28680 37380 49920 34816

**16320 kHz, 10-12, 0150 UTC, FSK 200/1000**

Link ID 13876 Msg Number 000 Msg Type 13876 Group Count 0  
 Link ID 32296 Msg Number 000 Msg Type 13948 Group Count 0  
 Link ID 55451 Msg Number 168 Msg Type 07152 Group Count 247

24576 00000 00000 00057 14273 04006 00000 45392  
 24704 00000 08193 32882 28563 03660 00015 25519  
 49152 36364 20609 38412 32097 50127 01283 12957

**14880 kHz, 10-12, 0230 UTC, FSK 200/1000**

Link ID 00000 Msg Number 025 Msg Type 49207 Group Count 0

00583 00964 00231 00025 37906 02100 00409 36961

**16320 kHz, 11-12, 0150 UTC, FSK 200/1000**

Link ID 30903 Msg Number 141 Msg Type 17667 Group Count 53  
 Link ID 41017 Msg Number 082 Msg Type 07145 Group Count 245  
 Link ID 62288 Msg Number 012 Msg Type 35761 Group Count 3

16436 01168 53782 33036 09648 24734 09040 44294  
 32768 52198 04942 06448 08722 33968 25248 33536  
 22895 08444 03110 58580 37529 36561 58139 02577

**14880 kHz, 11-12, 0230 UTC, FSK 200/1000**

Link ID 12308 Msg Number 000 Msg Type 29750 Group Count 0  
 Link ID 04098 Msg Number 000 Msg Type 01072 Group Count 0  
 Link ID 41018 Msg Number 085 Msg Type 07081 Group Count 213  
 Link ID 41018 Msg Number 085 Msg Type 07113 Group Count 245  
 Link ID 39946 Msg Number 008 Msg Type 02644 Group Count 235  
 Link ID 16492 Msg Number 171 Msg Type 07138 Group Count 245  
 Link ID 04232 Msg Number 000 Msg Type 19185 Group Count 126

16384 00000 00000 00828 15621 03980 00000 14372  
 00000 00000 00000 00532 08191 04031 16383 65535  
 32768 53094 06932 06458 17590 02160 54350 03632  
 32768 52070 06988 06458 21686 02160 62538 19985  
 42621 53144 36807 13316 00147 04176 57849 00744  
 32784 52061 10217 08948 43364 04321 43396 03363  
 03840 00512 00256 02165 13824 24576 00000 08195

**16320 kHz, 12-12, 0150 UTC, FSK 200/1000**

Link ID 41018 Msg Number 090 Msg Type 04585 Group Count 229  
 Link ID 12543 Msg Number 157 Msg Type 57375 Group Count 215  
 Link ID 20509 Msg Number 165 Msg Type 40445 Group Count 247  
 Link ID 41019 Msg Number 095 Msg Type 07145 Group Count 245

32768 00752 57368 09879 21686 01915 34672 64252  
 48044 10123 58716 06387 18119 49799 20597 01148  
 51208 47984 61828 05059 43611 33717 19388 32758  
 32768 13040 57880 03742 01166 01919 32889 61688

**14880 kHz, 12-12, 0230 UTC, FSK 200/1000**

Link ID 32794 Msg Number 026 Msg Type 07145 Group Count 245  
 Link ID 61666 Msg Number 166 Msg Type 31147 Group Count 170  
 Link ID 01421 Msg Number 014 Msg Type 01276 Group Count 5  
 Link ID 41018 Msg Number 090 Msg Type 07145 Group Count 245  
 Link ID 57717 Msg Number 240 Msg Type 03049 Group Count 245  
 Link ID 08250 Msg Number 090 Msg Type 07145 Group Count 245  
 Link ID 04353 Msg Number 000 Msg Type 24576 Group Count 183

32768 13040 57368 01687 21686 01915 34680 65276  
 25378 11152 13966 27296 02960 27842 18099 21060  
 04115 03036 35668 34016 40083 07294 00041 13946  
 32768 13040 57880 11927 21686 01915 34680 65276  
 32768 13040 59312 28342 10349 07911 08177 60905  
 32768 13040 57880 11927 29878 01915 01912 64764  
 62228 14848 16480 00048 00130 02752 16576 00288

**16320 kHz, 13-12, 0150 UTC, FSK 200/1000**

Link ID 61503 Msg Number 255 Msg Type 40957 Group Count 247  
 Link ID 41018 Msg Number 095 Msg Type 07145 Group Count 245  
 Link ID 20581 Msg Number 191 Msg Type 08130 Group Count 255  
 Link ID 41018 Msg Number 095 Msg Type 07145 Group Count 245  
 Link ID 41018 Msg Number 095 Msg Type 07145 Group Count 245  
 Link ID 41018 Msg Number 095 Msg Type 07145 Group Count 245

51208 61311 32765 64414 31315 34690 65371 53572  
 32768 19815 32217 25116 20662 03845 61094 37512  
 32784 20447 60067 50232 43501 07999 56575 10003  
 32768 19815 32217 25116 21686 03845 61094 37512  
 32768 19815 32217 25116 21686 03845 61094 37512  
 32768 19815 32217 25116 21686 03845 61094 37512

**14880 kHz, 13-12, 0230 UTC, FSK 200/1000**

Link ID 13360 Msg Number 000 Msg Type 29750 Group Count 0  
 Link ID 41018 Msg Number 095 Msg Type 07145 Group Count 245  
 Link ID 41018 Msg Number 095 Msg Type 07145 Group Count 245  
 Link ID 41019 Msg Number 095 Msg Type 07145 Group Count 245  
 Link ID 41018 Msg Number 095 Msg Type 06625 Group Count 240  
 Link ID 41018 Msg Number 095 Msg Type 07145 Group Count 245

17248 00000 00000 00271 15360 03840 00000 48694  
 32776 19815 32217 25116 21686 03845 28326 00648  
 32768 19815 32217 25116 21686 03845 61094 37512  
 32768 19815 32219 25116 21686 03845 61088 37504  
 49152 17767 32217 25116 21686 03845 61090 37504  
 32768 19815 32217 25116 21686 03840 61092 37504

**16320 kHz, 16-12, 0150 UTC, FSK 200/1000**

Link ID 13334 Msg Number 000 Msg Type 13366 Group Count 0  
 Link ID 41018 Msg Number 100 Msg Type 07145 Group Count 245  
 Link ID 41018 Msg Number 100 Msg Type 07113 Group Count 241  
 Link ID 41018 Msg Number 100 Msg Type 07145 Group Count 241  
 Link ID 31752 Msg Number 218 Msg Type 00033 Group Count 34  
 Link ID 32826 Msg Number 100 Msg Type 07149 Group Count 245  
 Link ID 63546 Msg Number 036 Msg Type 07137 Group Count 245  
 Link ID 41016 Msg Number 096 Msg Type 07147 Group Count 247

16384 00000 00000 00796 15371 01164 00000 06702  
 32768 59465 64986 07511 21686 01958 25953 53283  
 32768 59401 64986 07511 21686 02022 25961 53475  
 32768 59465 64986 07511 20532 00517 24642 32967  
 01477 02601 43058 00614 46320 48576 13127 64193  
 32792 59496 32218 07543 00018 01014 00121 16419  
 32768 59401 63194 40023 21558 01926 25977 53475  
 32768 59721 64778 07431 21686 01958 25961 53475

**14880 kHz, 16-12, 0230 UTC, FSK 200/1000**

Link ID 61562 Msg Number 244 Msg Type 07151 Group Count 117  
 Link ID 41018 Msg Number 100 Msg Type 08168 Group Count 255  
 Link ID 41018 Msg Number 077 Msg Type 07145 Group Count 255

32768 63561 65434 16143 58550 00934 29033 53475  
 32768 63809 60890 40215 21686 01958 25961 53475  
 32784 63816 64986 07519 64758 01970 60896 62947

**16320 kHz, 17-12, 0150 UTC, FSK 200/1000**

Link ID 05174 Msg Number 000 Msg Type 13362 Group Count 0  
 Link ID 62467 Msg Number 198 Msg Type 13941 Group Count 39  
 Link ID 41006 Msg Number 160 Msg Type 08169 Group Count 253  
 Link ID 00000 Msg Number 000 Msg Type 16384 Group Count 0  
 Link ID 58390 Msg Number 193 Msg Type 05370 Group Count 15

17248 00001 00000 00351 32011 03851 04368 48887  
 04263 07064 00856 04890 58095 24592 02547 02465  
 32768 63462 03173 15506 04278 03901 02502 50686  
 32768 00000 00000 00000 00000 00000 00000 00000  
 04190 09769 17048 06915 57775 25088 02291 00161

**14880 kHz, 17-12, 0230 UTC, FSK 200/1000**

Link ID 22679 Msg Number 189 Msg Type 06516 Group Count 244  
 Link ID 16044 Msg Number 050 Msg Type 20993 Group Count 127  
 Link ID 41018 Msg Number 105 Msg Type 07145 Group Count 245  
 Link ID 34828 Msg Number 091 Msg Type 06929 Group Count 112  
 Link ID 41018 Msg Number 105 Msg Type 07145 Group Count 247  
 Link ID 62471 Msg Number 199 Msg Type 13941 Group Count 39  
 Link ID 41082 Msg Number 105 Msg Type 07017 Group Count 245  
 Link ID 53122 Msg Number 191 Msg Type 07182 Group Count 54  
 Link ID 41018 Msg Number 105 Msg Type 04288 Group Count 242  
 Link ID 53141 Msg Number 254 Msg Type 07438 Group Count 118  
 Link ID 39750 Msg Number 124 Msg Type 34331 Group Count 52  
 Link ID 41018 Msg Number 233 Msg Type 03049 Group Count 245

32776 62331 03678 05724 29942 36637 02438 18174  
 63205 64561 27704 12424 63813 38852 58393 13229  
 32768 63230 03236 15784 21684 03896 43140 54510  
 35854 44155 08441 04959 56475 31825 46275 57659  
 34816 65510 03236 15784 31926 07997 63878 62718  
 04263 07064 00856 04891 61423 59136 08179 63985  
 32784 62182 03236 15784 21686 03901 43398 54526  
 49785 39446 10274 16259 39781 11840 63753 30446  
 32768 65478 03236 15784 21686 03903 43407 54526  
 50937 47734 10612 16263 59338 23937 57875 64589  
 35952 28497 60123 31462 01015 15347 49356 58784  
 32768 63206 03252 08104 20845 03962 41501 51693

Link ID 41018 Msg Number 105 Msg Type 07145 Group Count 244

32768 63206 03245 15786 65014 08061 64390 65022

**16320 kHz, 18-12, 0150 UTC, FSK 200/1000**

Link ID 29734 Msg Number 000 Msg Type 13438 Group Count 0  
Link ID 61631 Msg Number 255 Msg Type 08173 Group Count 247  
Link ID 61754 Msg Number 110 Msg Type 12521 Group Count 224  
Link ID 49183 Msg Number 255 Msg Type 40937 Group Count 245

18407 00000 00016 03504 15627 03251 00000 01207  
34824 50909 34795 16383 46505 49353 13805 34943  
32768 00091 03991 59110 05270 00311 26263 00238  
33288 50396 33351 15359 63505 33171 29131 04863

**16320 kHz, 19-12, 0150 UTC, FSK 200/1000**

Link ID 13374 Msg Number 000 Msg Type 13366 Group Count 0  
Link ID 13318 Msg Number 000 Msg Type 13366 Group Count 0  
Link ID 41018 Msg Number 115 Msg Type 07145 Group Count 245  
Link ID 22998 Msg Number 047 Msg Type 25606 Group Count 64  
Link ID 18591 Msg Number 241 Msg Type 04652 Group Count 246  
Link ID 61822 Msg Number 247 Msg Type 07145 Group Count 245  
Link ID 20359 Msg Number 183 Msg Type 12593 Group Count 63  
Link ID 61403 Msg Number 031 Msg Type 25203 Group Count 111

16512 00000 00131 01916 31771 03980 00256 14382  
16384 00000 00000 01340 15361 00008 00000 14350  
32768 08336 64881 30064 04114 00000 28770 00050  
01293 00081 41956 55568 17463 29904 22122 32914  
49160 14336 16376 49144 11007 33975 28799 33655  
32769 08339 65523 65520 54454 02085 61670 04726  
53071 33012 59004 43712 56127 15733 32767 24554  
16951 04095 64294 63425 36499 59374 05380 34176

**14880 kHz, 17-12, 0230 UTC, FSK 200/1000**

Link ID 13366 Msg Number 000 Msg Type 29750 Group Count 0  
Link ID 41018 Msg Number 115 Msg Type 07145 Group Count 245  
Link ID 41018 Msg Number 115 Msg Type 07145 Group Count 245  
Link ID 40992 Msg Number 098 Msg Type 07145 Group Count 245  
Link ID 41072 Msg Number 242 Msg Type 04457 Group Count 240  
Link ID 40986 Msg Number 115 Msg Type 07145 Group Count 245  
Link ID 41018 Msg Number 115 Msg Type 07145 Group Count 245

16384 00000 00000 01852 15371 03468 00000 14382  
32768 08336 64881 30064 21686 02085 61670 04726  
32768 08336 64881 30064 21686 02085 61542 04214  
32768 08336 64864 30064 43372 04186 57548 09709  
32768 00000 65520 32752 00036 00000 57540 00101  
32768 08336 64881 30064 21686 02085 61670 04726  
32768 08336 64881 30064 21686 02080 61666 04722

**16320 kHz, 20-12, 0150 UTC, FSK 200/1000**

Link ID 13503 Msg Number 128 Msg Type 46775 Group Count 8  
Link ID 08176 Msg Number 147 Msg Type 52811 Group Count 69  
Link ID 41018 Msg Number 120 Msg Type 07145 Group Count 245  
Link ID 41018 Msg Number 120 Msg Type 07113 Group Count 240  
Link ID 44221 Msg Number 244 Msg Type 07145 Group Count 245

58352 01536 00000 00375 48655 36621 02056 32627  
13152 14963 65515 24572 06096 17419 04324 00436  
32768 59032 12932 33725 21686 01055 55596 39386  
00000 58504 12932 33721 01206 00031 53548 37338  
32768 59032 13250 37846 43739 33415 25758 52325

**14880 kHz, 20-12, 0230 UTC, FSK 200/1000**

Link ID 05170 Msg Number 000 Msg Type 13366 Group Count 0  
Link ID 41018 Msg Number 120 Msg Type 07145 Group Count 245  
Link ID 40986 Msg Number 056 Msg Type 07145 Group Count 112  
Link ID 41018 Msg Number 120 Msg Type 07145 Group Count 247

17248 00000 00000 00343 15360 03840 00000 48755  
32768 59032 12932 33725 21686 01055 55596 39386  
32768 58520 12932 33565 21759 01407 56189 39935  
32768 61336 12932 33725 21750 01055 63788 39386

**16320 kHz, 23-12, 0150 UTC, FSK 200/1000**

Link ID 32824 Msg Number 253 Msg Type 07145 Group Count 245

32912 10256 59521 19723 29271 33439 65464 56831

**14880 kHz, 23-12, 0230 UTC, FSK 200/1000**

Link ID 12024 Msg Number 015 Msg Type 07951 Group Count 233  
Link ID 41082 Msg Number 125 Msg Type 07145 Group Count 245  
Link ID 51992 Msg Number 208 Msg Type 04080 Group Count 155  
Link ID 13366 Msg Number 000 Msg Type 13334 Group Count 0  
Link ID 41018 Msg Number 125 Msg Type 04424 Group Count 112  
Link ID 41018 Msg Number 125 Msg Type 07145 Group Count 245  
Link ID 41016 Msg Number 053 Msg Type 07145 Group Count 245

00803 55454 05228 02000 11127 30142 13313 60243  
32768 10256 59409 18715 21686 01339 63792 60014  
61921 38785 04800 14003 00166 14119 32960 02160  
16384 00000 00000 01852 15371 03468 00000 14382  
32768 02048 59409 18715 21686 01339 63792 60014  
32768 10256 59409 18715 21684 01338 63792 60014  
32768 10256 59393 18715 21682 01297 63760 59950

**16320 kHz, 24-12, 0150 UTC, FSK 200/1000**

Link ID 41018 Msg Number 002 Msg Type 07145 Group Count 245  
Link ID 59252 Msg Number 247 Msg Type 04103 Group Count 113  
Link ID 41018 Msg Number 130 Msg Type 07145 Group Count 245  
Link ID 43066 Msg Number 130 Msg Type 07980 Group Count 243

32768 31705 19249 22270 17590 01843 38479 50139  
00519 01841 43115 36633 63453 40157 61728 62251  
32768 31705 19378 22262 00038 00035 00079 00219  
51200 64960 53171 32510 21750 01843 38607 50139

**14880 kHz, 24-12, 0230 UTC, FSK 200/1000**

Link ID 64673 Msg Number 069 Msg Type 01906 Group Count 2  
 Link ID 14653 Msg Number 251 Msg Type 20236 Group Count 208  
 Link ID 62280 Msg Number 128 Msg Type 34397 Group Count 41  
 Link ID 14644 Msg Number 249 Msg Type 20236 Group Count 196  
 Link ID 61556 Msg Number 020 Msg Type 07145 Group Count 245

19515 09511 31540 21671 48939 23904 05102 25196  
 61496 28680 20431 37631 28654 32550 53191 64752  
 46880 09107 05409 26480 10397 29011 03163 32236  
 29816 29016 20423 37501 12270 12038 52167 29748  
 32768 31705 53111 65276 43116 07783 15519 34727

**16320 kHz, 25-12, 0150 UTC, FSK 200/1000**

Link ID 03296 Msg Number 119 Msg Type 28944 Group Count 205  
 Link ID 61503 Msg Number 135 Msg Type 07104 Group Count 241  
 Link ID 05012 Msg Number 234 Msg Type 43583 Group Count 208

30592 63012 54223 22989 54270 46551 60294 13263  
 32769 45063 08093 04232 30367 35992 61207 16136  
 57007 11633 09020 37636 56754 53409 13515 18018

**14880 kHz, 25-12, 0230 UTC, FSK 200/1000**

Link ID 13366 Msg Number 000 Msg Type 13334 Group Count 0  
 Link ID 41016 Msg Number 135 Msg Type 07145 Group Count 245  
 Link ID 41018 Msg Number 135 Msg Type 06953 Group Count 240  
 Link ID 32826 Msg Number 135 Msg Type 07136 Group Count 241  
 Link ID 41018 Msg Number 135 Msg Type 07145 Group Count 245  
 Link ID 41018 Msg Number 135 Msg Type 07145 Group Count 245

16384 00000 00000 01852 15371 03468 00000 14383  
 32768 45575 08093 04488 21686 00034 52783 11152  
 32768 45063 08093 04488 20662 02082 52783 02964  
 32768 45059 03989 00392 20662 00034 50735 00404  
 32768 45575 08093 04488 21686 02082 52783 11156  
 32768 45575 08093 04488 00147 02176 19975 02824

**16320 kHz, 26-12, 0150 UTC, FSK 200/1000**

Link ID 13366 Msg Number 000 Msg Type 13366 Group Count 0  
 Link ID 41018 Msg Number 140 Msg Type 07145 Group Count 245  
 Link ID 59509 Msg Number 072 Msg Type 07147 Group Count 245  
 Link ID 57727 Msg Number 140 Msg Type 07017 Group Count 240  
 Link ID 41018 Msg Number 140 Msg Type 07145 Group Count 245  
 Link ID 41023 Msg Number 140 Msg Type 05097 Group Count 228  
 Link ID 41087 Msg Number 156 Msg Type 07145 Group Count 253

17251 00000 00000 03504 32011 03315 00000 01207  
 32769 52342 34338 34430 21686 00132 59723 10509  
 32769 52343 36421 53244 44287 04493 52175 27407  
 32769 49271 40551 36606 21686 00132 59723 10509  
 32769 52342 34338 34430 54454 00132 59723 10509  
 32769 03190 34342 34558 54454 00004 59467 10509  
 33793 52342 36582 36606 62646 00132 59723 10509

**14880 kHz, 26-12, 0230 UTC, FSK 200/1000**

Link ID 13366 Msg Number 000 Msg Type 13334 Group Count 0  
 Link ID 41016 Msg Number 135 Msg Type 07145 Group Count 245  
 Link ID 41018 Msg Number 135 Msg Type 06953 Group Count 240  
 Link ID 32826 Msg Number 135 Msg Type 07136 Group Count 241  
 Link ID 41018 Msg Number 135 Msg Type 07145 Group Count 245  
 Link ID 41018 Msg Number 135 Msg Type 07145 Group Count 245

16384 00000 00000 01852 15371 03468 00000 14383  
 32768 45575 08093 04488 21686 00034 52783 11152  
 32768 45063 08093 04488 20662 02082 52783 02964  
 32768 45059 03989 00392 20662 00034 50735 00404  
 32768 45575 08093 04488 21686 02082 52783 11156  
 32768 45575 08093 04488 00147 02176 19975 02824

**16320 kHz, 27-12, 0150 UTC, FSK 200/1000**

Data transmission started half hour earlier but can not be decoded (different baud speed?) then returned to normal values.

Link ID 41020 Msg Number 243 Msg Type 15337 Group Count 245  
 Link ID 41082 Msg Number 177 Msg Type 08169 Group Count 247  
 Link ID 43124 Msg Number 051 Msg Type 07145 Group Count 241

36865 42928 58047 00095 53428 03712 09547 03011  
 34049 59376 65462 13579 16604 03592 03392 03011  
 32779 42897 65069 14934 44086 01033 30978 00967

**14880 kHz, 27-12, 0230 UTC, FSK 200/1000**

Link ID 41018 Msg Number 145 Msg Type 07145 Group Count 245  
 Link ID 57460 Msg Number 051 Msg Type 04073 Group Count 245  
 Link ID 43070 Msg Number 145 Msg Type 05097 Group Count 245  
 Link ID 42603 Msg Number 129 Msg Type 60919 Group Count 76  
 Link ID 41018 Msg Number 145 Msg Type 07145 Group Count 245

34817 42928 63390 05419 21687 03720 15690 03011  
 32771 63409 60975 10847 56822 03976 16202 04035  
 32769 59184 63390 40235 54518 03720 16207 04035  
 18585 05313 48695 01039 57592 57412 56446 44054  
 32769 42928 63390 07467 21686 03720 15694 03011

**16320 kHz, 30-12, 0150 UTC, FSK 200/1000**

Link ID 57470 Msg Number 182 Msg Type 07049 Group Count 245  
 Link ID 57402 Msg Number 150 Msg Type 02921 Group Count 85  
 Link ID 32826 Msg Number 150 Msg Type 06369 Group Count 241

32769 00657 40831 36604 62588 05379 12637 60291  
 00009 00157 53046 36604 16528 01024 33836 36233  
 32769 00920 17974 35580 21686 01289 42286 48585

**14880 kHz, 30-12, 0230 UTC, FSK 200/1000**

Link ID 41016 Msg Number 150 Msg Type 07145 Group Count 245  
 Link ID 41022 Msg Number 254 Msg Type 07161 Group Count 247  
 Link ID 41018 Msg Number 150 Msg Type 07145 Group Count 245  
 Link ID 41022 Msg Number 150 Msg Type 07145 Group Count 245

32769 00921 17974 35580 21686 01289 42286 48585  
 32769 00921 18175 35580 64694 05385 62766 64969  
 32769 00921 17983 35580 62646 05385 42287 48585  
 32769 00921 17974 35580 21686 01289 42302 48585

**16320 kHz, 31-12, 0150 UTC, FSK 200/1000**

Link ID 41018 Msg Number 155 Msg Type 07145 Group Count 245  
Link ID 32103 Msg Number 034 Msg Type 49475 Group Count 53  
Link ID 28519 Msg Number 039 Msg Type 19010 Group Count 52

32769 21975 14890 13646 22263 03726 33659 42953  
26192 06209 45914 21171 30955 51071 03228 38725  
26192 55360 45918 21175 64687 34687 15582 48847

**14880 kHz, 31-12, 0230 UTC, FSK 200/1000**

Link ID 57658 Msg Number 059 Msg Type 08171 Group Count 255  
Link ID 57402 Msg Number 155 Msg Type 16363 Group Count 255  
Link ID 41018 Msg Number 155 Msg Type 08169 Group Count 245  
Link ID 60548 Msg Number 200 Msg Type 09731 Group Count 14  
Link ID 41018 Msg Number 155 Msg Type 07145 Group Count 245  
Link ID 57402 Msg Number 155 Msg Type 07145 Group Count 245  
Link ID 41082 Msg Number 187 Msg Type 07145 Group Count 245

32787 65495 29738 24910 21686 01162 33067 41801  
36883 65503 14890 13646 21686 01162 33067 41801  
32769 30151 14890 13646 21686 01162 33067 41801  
00192 33976 18543 49048 23083 50268 02498 29387  
32769 21959 14891 13646 64694 07306 37675 58185  
32769 21959 31274 30030 21686 01162 33067 41801  
32769 21959 08298 12110 21686 01162 33067 41801



**XP family**

**XPA: 7756 kHz, 07-12, 0700 UTC**

RRRRRRRRYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYY  
RRRRRRRRYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYY  
RRRRRRRRYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYY  
SS9SS9SS9SS9SS9SS9SS9SS9SS9SS9SS9SS9SS9SS9SS9SS9  
66666666662222666622662266 44444444444444444444 666666666622226  
770066 770066 000000  
770066 770066 770066 000000  
770066 770066 770066 000000  
SS9SS9SS9SS9SS9SS9SS9SS9SS9SS9SS9SS9SS9SS9SS9SS9  
66666666662222666622662266 44444444444444444444 666666666622226  
0066886611 0000000011 0000000000  
End of message  
End of message

**XPA: 7756 kHz, 14-12, 0700 UTC**

RRRRRRRRYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYY  
RRRRRRRRYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYY  
RRRRRRRRYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYY  
SS9SS9SS9SS9SS9SS9SS9SS9SS9SS9SS9SS9SS9SS9SS9SS9  
66666666662222666622662266 44444444444444444444 666666666622226  
770066 770066 000000 770066 770066 770066 000000 770066 770066 770066 000000  
SS9SS9SS9SS9SS9SS9SS9SS9SS9SS9SS9SS9SS9SS9SS9SS9  
66666666662222666622662266 44444444444444444444 666666666622226  
0077770099 0000000011 0000000000  
End of message  
End of message

**XPA: 7756 kHz, 21-12, 0700 UTC**

RRRRRRRRYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYY  
SS9SS9SS9SS9SS9SS9SS9SS9SS9SS9SS9SS9SS9  
66666666662222666622662266 444444444444444444 666666666622226  
770066 770066 11 770066 770066 770066 11 770066 770066 770066 11  
SS9SS9SS9SS9SS9SS9SS9SS9SS9SS9SS9SS9SS9  
66666666662222666622662266 444444444444444444 666666666622226  
0066330011 0000220077 7700552200 0077992288 7722225511 4499226666 1144992299 1122999966 1155886622  
5500998800 0099334422 4499000088 5577774499 0099660033 4433227744 0000664477 1177883388 8811662266  
9900111111 4411006666 7755008822 6622888844 6611445577 6688880011 4477778822 3399773333 9933117766  
4400117722 9933006666 0099887777 4444229988 4422999977 5588663344 3388998888 4433888855 3300997700  
8844779900 0066117766 5577660033 8822997722 7700778800 1155991166 6666661166 2211668833 9900227788  
7755441199 5511883366 5599225522 5599993399 5500228899 3344999999 6633004466 3355993399 9911558811  
9966666611 9999444411 7722444400 2277880022 3311999977 5555557777 9999442211 7733445588 2200009977  
2266992211  
66666666662222666622662266  
4477001177 5500883355 9933771199 2255554455 8899110000 1188772266 2288223366 2244225566 4499991111  
2222008811 7700556699 2244995533 0011992211 8899336600 5566223388 2299665533 3300001177 0088663311  
8833880011 6699001133 8833339988 9900004455 5500661166 0011887766 4477119966 8899992277 2277553399  
4444776666 9955000000 3333003388 3322442266 5533664477 5555227722 8811441199 6666333388 7777006611  
7766880044 8844996611 6644000044 6644330022 6633667711 5555779922 1133996677 3322884499 6600553366  
3322997799 7700559977 1133665500 3300775544 1122996699 4466998844 6677666633 9977554422 6633004433  
4444554411 3377443300 9900665500 4499113344 6644779911 1188003399 1122661111 1155774488 8855338822  
2222777766  
66666666662222666622662266  
5555995588 8855222255 2299997744 2299881188 1155993344 0055110000 8855998811 9933888844 9966551155  
3344003300 0033006699 0066558822 0000443388 2266993355 1100119955 2244660055 6644448888 1100550099  
8855551166 9933552266 8833008800 0088006644 7766888844 2277884400 5544440044 9988339922 1144886622  
7744446622 7755444455 2299666677 2222887711 7755336644 2211330022 6677444400 5544223366 1188554422  
3300773311 4400555544 3377550055 2222005544 0000447755 7700001166 5544996677 8800440000 4400880088  
7744552211 6666225588 8888448866 8833111188 7799448844 5566997799 9988553366 6688773344 7744999944  
9966224433 3311885555 0011666611 0077448888 1111998822 3300223322 9966444488 5588009988 3366442200  
11144338844  
66666666662222666622662266  
7755225511 7700227711 0055229933 9911117766 7755885522 1122335544 7700997777 2288660011 1122333333  
3355995599 0033443300 3311003399 5533114433 4411774499 7777113333 6633337766 4488771100  
End of message End of message

**XPA2: 20258 kHz, 24-12, 0800 UTC. Decoded by Rivet**

00144 00113 33311 56603 12048 56752 42341 16096 50561 06980  
78696 00013 58434 14717 83548 48175 14613 58874 11441 71610  
96406 51449 75654 11366 23184 69863 31002 89411 34330 25664  
83781 62857 44226 15145 07168 66471 92867 82896 79201 40512  
43994 12977 35293 13063 27488 34321 27350 30997 38243 52645  
95060 33602 99884 92178 72448 14507 55756 42155 70999 86461  
04861 69924 81875 21808 46191 23482 74423 12528 79331 33980  
72295 46411 66392 16441 46964 54831 43478 93174 37962 29232  
01345 06677 52136 13875 69476 39830 30185 19679 15380 47278  
17335 91957 00268 25164 78480 10824 55921 58195 49012 60992  
68209 17346 85369 94260 04439 15345 89615 35779 38416 84443  
93303 22597 86546 49993 07010 50156 45188 68078 51804 73085  
01200 52583 96858 91948 21880 33158 82807 47557 13064 07883  
92055 12117 15434 15084 31876 29212 51532 07664 73547 49778  
55119 25892 57851 52205 51750 60468 04422 89977 35754 93411  
31443 23131 52395 50773 28349 74928 60430 39473 13146 94652  
69128 69492 18210 04386 69766 93947 92473 48154 80471 74580  
29894 99104 40667 49358 94508 11565 23727 73682 01860 77620  
21118 28366 00960 29167 43815 83120 08835 02071 68905 55102  
73075 25944 70449 71765  
End Tone

XPA: 8164 kHz, 24-12, 1900 UTC.

Decoded by resp. Sorcerer and Code300 (left) and Rivet (right).

RRRRRRRRYYYYYYYYYYYYYYYYYYYYYYYYYYYY  
RRRRRRRRYYYYYYYYYYYYYYYYYYYYYYYYYYYY  
RRRRRRRRYYYYYYYYYYYYYYYYYYYYYYYYYYYY  
SS9SS9SS9SS9SS9SS9SS9SS9SS9SS9SS9SS9SS9SS9SS9SS9  
66666666662222666622662266 44444444444444444444 666666666622226  
113388 113388 000000  
113388 113388 113388 000000  
113388 113388 113388 000000  
SS9SS9SS9SS9SS9SS9SS9SS9SS9SS9SS9SS9SS9SS9SS9SS9  
66666666662222666622662266 44444444444444444444 666666666622226  
0022221177 0000000011 0000000000  
End of message

Block Sync  
4444444444  
Block Sync  
138 138 138 000  
138 138 138 000  
138 138 138 000  
Block Sync  
4444444444  
Block Sync  
6  
Message Start  
02217 00001 00000 10140  
End of message

XPA: 8164 kHz, 31-12, 1900 UTC.

Decoded by resp. Sorcerer and Code300 (left) and Rivet (right).

.  
RRRRRRRRYYYYYYYYYYYYYYYYYYYYYYYYYYYY  
SS9SS9SS9SS9SS9SS9SS9SS9SS9SS9SS9SS9SS9SS9SS9SS9  
96666666662222666622662266 44444444444444444444 666666666622226  
113388 113388 000000  
113388 113388 113388 000000  
113388 113388 113388 000000  
SS9SS9SS9SS9SS9SS9SS9SS9SS9SS9SS9SS9SS9SS9SS9SS9  
96666666662222666622662266 44444444444444444444 666666666622226  
0055221166 0000000011 0000000000  
End of message

Block Sync  
4444444444  
Block Sync  
138 138 138 000 138 138 138 000  
138 138 138 000  
Block Sync  
4444444444  
Block Sync  
6  
Message Start  
05216 00001 00000 10140  
End of message



***XSL a.k.a. Slot Machine***  
***Japan Maritime Self-Defense Force***  
***海上自衛隊 Kaijō Jieitai***

Logged on various dates and times on 4152, 4231.5, 6250, 6417, 8313, 8588, 8703.5 kHz  
Mode: QPSK 1500



**Chinese diplomatic stations**

date	UTC	day	Freq.	remarks	mode
6-12-2013	0043	Fri	9219	Chinese diplo	LSB 4+4 75
11-12-2013	1125	Wed	18381	Chinese diplo. 4FG messages.	LSB 4+4 75
12-12-2013	1027	Thu	10902	Chinese diplo. 4FG messages.	LSB 4+4 75
12-12-2013	1145	Thu	8073	Chinese diplo. 3FG messages. 025 773 357 373 417 993 447 385 480 486	LSB 4+4 75
12-12-2013	1145	Thu	18051	Chinese diplo. 4FG messages.	LSB 4+4 75
13-12-2013	1045	Fri	13160	Chinese diplo. 4FG messages.	LSB 4+4 75



025 773 357 373 417 993 447 385 480 486  
 476 329 012 773 017#773 018 773 024 773  
 025 773 357 417 993 447 385 480 486 020  
 773 354 373 407 993 (53 385 339 938 407-3  
 993 446 383 480 486 476  
 AHR MSG GA  
 NR1096 CK54 35 1109 1606 --  
 /11 952 009 953 018 954 700 011 746 965  
 605 607 601 030 965 605 610 014 614 135  
 615 150 616 950 617 045 624 280 748 622  
 018 934 020 956 421 835 843 812 830 945  
 256 935 813 024 811 854+927 883 614 170  
 615 082 617 045  
 MSG AGN

The logs and comments were provided by Eddy Waters.

8073 kHz, 12-12, 1145 UTC. This is the only 4+4 station found which sends three figure groups exclusively. Sample right.



### **North Korean diplomatic stations**

date	UTC	day	Freq.	Remarks	mode
7-12-2013	0100	Sat	18525	N. Korean diplo	DPRK-ARQ 600/600
8-12-2013	0927	Sun	14712	N. Korean diplo	DPRK-ARQ 600/600
8-12-2013	1341	Sun	14442.5	North Korean diplo	DPRK-ARQ 600/600
9-12-2013	1053	Mon	18176	N. Korean diplo	DPRK-ARQ 600/600
10-12-2013	2330	Tue	16003	N. Korean diplo	DPRK-ARQ 600/600
11-12-2013	0822	Wed	20412	N. Korean diplo	DPRK-ARQ 600/600
11-12-2013	1053	Wed	18525	N. Korean diplo	DPRK-ARQ 600/600
11-12-2013	1118	Wed	24129	N. Korean diplo	DPRK-ARQ 600/600
13-12-2013	0933	Fri	14444	N. Korean diplo	DPRK-ARQ 600/600
13-12-2013	1111	Fri	21325	N. Korean diplo	DPRK-ARQ 600/600
13-12-2013	2300	Fri	16003	N. Korean diplo. Audio transmission with music in background like an open microphone.	DPRK-ARQ 600/600
14-12-2013	0132	Sat	14743	N. Korean diplo. Audio transmission with music in background like an open microphone.	DPRK-ARQ 600/600
14-12-2013	0200	Sat	16121	N. Korean diplo.	DPRK-ARQ 600/600
14-12-2013	0200	Sat	16320	N. Korean diplo.	DPRK-ARQ 600/600
15-12-2013	0215	Sun	16320	N. Korean diplo.	DPRK-ARQ 600/600
20-12-2013	1311	Fri	14858.4	North Korean diplo	DPRK-ARQ 600/600
24-12-2013	2300	Tue	16003	N. Korean diplo	DPRK-ARQ 600/600
25-12-2013	1618	Wed	19960	North Korean Embassy, Europe/North or West Africa	DPRK-ARQ 600/600
26-12-2013	1256	Thu	14444	North Korean Embassy, Europe	DPRK-ARQ 1200/1200
26-12-2013	1358	Thu	20130.2	tfc two North Korean Embassies, Europe/Africa	DPRK-ARQ 600/600



## **Egyptian diplomatic stations**

Modes: SITOR-A 100/170 & Codan-9001

date	UTC	day	Freq.	remarks	mode
1-12-2013	1513	Sun	16067.7	MFA Cairo clg RCVB Kinshasa	SITOR-A 100/170
6-12-2013	1156	Fri	19162	Egyptian MFA, Cairo "99902" secure tfc to "44406" Egyptian embassy New Delhi	Codan 16 tone
18-12-2013	0808	Wed	19100	MFA Cairo	SITOR-A
18-12-2013	0809	Wed	20124	MFA Cairo	SITOR-A
18-12-2013	1000	Wed	19345	MFA Cairo	SITOR-A
19-12-2013	0909	Thu	19100	MFA Cairo	SITOR-A
21-12-2013	0919	Sat	13521.8	MFA Cairo clg Egyptian embassy Pyongyang "OOVF"	SITOR-A
21-12-2013	0942	Sat	12525.1	MFA Cairo clg unid embassy "MKCV"	SITOR-A
21-12-2013	0948	Sat	12480.1	MFA Cairo clg unid embassy "XVSV"	SITOR-A
21-12-2013	1150	Sat	12530.6	MFA Cairo clg unid embassy "MKCV"	SITOR-A
30-12-2013	----	Mon	16223.7	Egyptian MFA clg RCVB, Egyptian embassy Washington	SITOR-A 100/170
30-12-2013	0830	Mon	18241.7	Egyptian MFA clg KKVE, Egyptian embassy Bamako	SITOR-A 100/170
30-12-2013	0843	Mon	18472.7	Egyptian MFA clg KKVI, Egyptian embassy Dar Es Salaam	SITOR-A 100/170
30-12-2013	0857	Mon	19101.7	Egyptian MFA (99903) clg 44403, Egyptian embassy Jakarta	Codan Chirp
30-12-2013	1124	Mon	18472.7	Egyptian MFA clg TVXX, Egyptian embassy Sanaa + Codan Chirp Selcall 011	SITOR-A 100/170 + Codan chirp
30-12-2013	1333	Mon	22667.7	Egyptian MFA, Cairo clg "KKVA" Embassy Lagos	SITOR-A 100/170
30-12-2013	1555	Mon	20901.7	Egyptian Embassy, Luanda with ATU-80 tfc to MFA Cairo	SITOR-A 100/170

## **UTILITY ROUND-UP**



### **Unid 10-minutes stations**

3329 kHz, 06-12, 1526 UTC WORZ  
 3363 kHz, 06-12, 1540 UTC BG5Y  
 3363 kHz, 06-12, 1843 UTC BG5Y  
 3363 kHz, 07-12, 1641 UTC BG5Y  
 3363 kHz, 08-12, 1942 UTC BG5Y  
 3987 kHz, 29-12, 1820 UTC WORZ



## ***Emergency Action Messages & Skyking Messages***

Logged by LG2, Dave and Topol

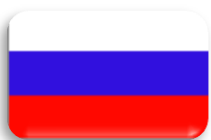
Frequencies: 4724, 8992, 11175, 11244, 15016 kHz

03-12 1144	3A6 44 ZZ	Mainsail Skyking DNA
03-12 1349	634 49 CK	Mainsail Skyking DNA
03-12 1509	JSE 09 RT	Mainsail Skyking DNA
03-12 1538	IAH2QZ	Mainsail 30 chr EAM
03-12 1600	IAH2QZ	repeat
03-12 1628	IA47HW	Mainsail 30 chr EAM
03-12 1630	IARN5Z	Mainsail 30 chr EAM
03-12 1632	IAH2QZ	repeat
03-12 1717	IAUEYR	Mainsail 30 chr EAM
03-12 1730	IAUEYR	repeat
03-12 1800	IAUEYR	repeat
03-12 1813	IA2XJR	Mainsail 30 chr EAM
03-12 1821	IAUZTI	Mainsail 30 chr EAM
03-12 1830	IAUZTI	repeat
03-12 1830	IA2XJR	repeat
03-12 1830	IAUEYR	repeat
03-12 1900	IAUZTI	repeat
03-12 1900	IA2XJR	repeat
03-12 1900	IAUEYR	repeat
03-12 1907	E34RKL	Mainsail for TENNIS COURT 30 chr EAM
03-12 1951	E#S6KB	Mainsail 30 chr EAM
03-12 2018	RRU 18 SA	Mainsail Skyking DNA
03-12 2024	IARQLJ	Mainsail 30 chr EAM
02-12 1021	OY6 T21UK	
02-12 1321	DBI T21 JD	
02-12 1442	LSR T42 MZ	
02-12 1636	NM2 T36 ZI	
03-12 1349	634 T49 CK	
03-12 1509	JSE T09 RT	
03-12 1538	IAH2QZ	C7AY756ISXQLRC3JDIRUQN4T
03-12 1600	IAH2QZ	C7AY756ISXQLRC3JDIRUQN4T
03-12 1628	IAH47W	7J6EG53TQ6RD7VIBGZXL6EVU
03-12 1631	IARN5Z	4MTSBWXQ6SZ6LPOCH5PWJ5U6
03-12 1633	IAH2QZ	C7AY756ISXQLRC3JDIRUQN4T
03-12 1718	IAUEYR	DPMBCIFPW75H7ETG6U6QRKVO
03-12 1730	IAUEYR	DPMBCIFPW75H7ETG6U6QRKVO
03-12 1630	IAD5X6	L7DYSU2DKJ6LSKGCCWCNEZSV
03-12 1650	E3WEYE	AKZ7KXEWALXCRKJNKJVTZI6WKGYUDRL2
03-12 1656	LIL T56 FZ	
04-12 1333	E33DL7	3EVNZCTQDNAGIZGZNOC7ZFBY For SHOOK
04-12 1433	E3UTKK	EPALV27J2DYGAJXPZZ64MOQY For SHOOK
04-12 1444	LFX T44 WP	
04-12 1533	E3VY76	N2B5BERLEKNG4RT6BSGAV7SS For SHOOK
04-12 1552	LBM T52 JX	
04-12 1633	E3BUUD	HVZB4CEURBQ7VDYY7AOJVUFY For SHOOK
04-12 1630	IAD5X6	L7DYSU2DKJ6LSKGCCWCNEZSV
04-12 1650	E3WEYE	AKZ7KXEWALXCRKJNKJVTZI6WKGYUDRL2
04-12 1656	LIL T56 FZ	
08-12 1151	RD3 51 J?	Mainsail Skyking DNA
08-12 1323	BCE 23 UA	Mainsail Skyking DNA

08-12	1458	2MY 58 J?	Mainsail Skyking DNA
08-12	1531	IAZTXL	Mainsail 30 chr EAM
08-12	1537	IAP3NR	Mainsail 30 chr EAM
08-12	1542	IA3KMX	Mainsail 30 chr EAM
08-12	1621	2TF5QK	Mainsail 121 chr EAM
08-12	1630	2TF5QK	repeat
08-12	1650	3BT 50 YE	Mainsail Skyking DNA
08-12	1902	IA6KP4	Mainsail 30 chr EAM
08-12	1944	E3JG26	Mainsail 34 chr EAM
10-12	1148	6FJZFW	Mainsail 30 chr EAM
10-12	1223	65J 23 RQ	Mainsail Skyking DNA
10-12	1245	JCA 45 AX	Mainsail Skyking DNA
10-12	1308	W6U 08 RS	Mainsail Skyking DNA
10-12	1308	I7L 08 RS	Mainsail Skyking DNA
10-12	1333	6FZODA	Mainsail for TRAIN 30 chr EAM
10-12	1702	6FIVJR	Mainsail for SUPINE 30 chr EAM
10-12	1702	6FIVJR	Mainsail repeat(different station as signal very weak)
10-12	1821	WR2 21 OL	Mainsail Skyking DNA
10-12	1846	2KT 46 LB	Mainsail Skyking DNA
10-12	1847	2KT47 LB	Mainsail Skyking DNA(different station)
10-12	1857	IADXOY	Mainsail 30 chr EAM
10-12	1919	6FFCBJ	Mainsail for DAY COACH? 30 chr EAM
10-12	1932	IAAZG6	Mainsail 30 chr EAM
10-12	1935	IA6XNU	Mainsail 30 chr EAM
10-12	1946	IAH3SE	Mainsail 30 chr EAM
11-12	1349	6FOZPS	Mainsail 34 chr EAM
11-12	1430	?4W 30 ??	Mainsail Skyking DNA (poor signal)
11-12	1521	6FVLQL	Mainsail 39 chr EAM
11-12	1527	6FF34D	Mainsail 34 chr EAM
11-12	1549	IANLQR	Mainsail 30 chr EAM
11-12	1643	6F6RFV	Mainsail 50 chr EAM
11-12	1656	6FHJIA	Mainsail for OVER TIMER? 30 chr EAM
11-12	1854	6FE574	Mainsail for OVER VERSION? 30 chr EAM
11-12	1911	IA4C5V	Mainsail 30 chr EAM
11-12	1917	IAPTH7	Mainsail 30 chr EAM
15-12	1308	ZMBX6E	Mainsail 30 chr EAM
15-12	1332	6FK7WK	Mainsail for ?? 30 chr EAM (callsign unreadable)
15-12	1409	ZMEG5D	Mainsail 30 chr EAM
15-12	1424	ZMBWK3	Mainsail 30 chr EAM
15-12	1432	ZM5KI5	Mainsail 30 chr EAM
15-12	1434	6F2SPB	Mainsail for SADAM? 30 chr EAM
15-12	1436	ZMZH3	Mainsail 30 chr EAM
15-12	1438	ZMBWK3	Repeat
15-12	1440	ZMEG5D	Repeat
15-12	1518	6FIMGY	Mainsail for GAZABEL 30 chr EAM
15-12	1532	6GLF76	Mainsail for DATUM 30 chr EAM
15-12	1632	6FNKKK	Mainsail for DATUM 30 chr EAM
15-12	1732	6FH4DE	Mainsail for DATUM 30 chr EAM
15-12	1834	6FC6B4	Mainsail for DATUM 30 chr EAM
15-12	1851	7F0 51 CB	Mainsail Skyking DNA
07-12	1531	E3BGLR	Mainsail
09-12	1705	IAW2QW	Mainsail
09-12	1708	IAENDB	Mainsail
09-12	1710	IAR77A	Mainsail
09-12	2004		ending EAM of 64 chrs
09-12	2318	IAMXK2	Mainsail
09-12	2329	6FMYNQG	Mainsail
09-12	1553	ZM7XAB	Mainsail
09-12	1601	ZM7XAB	Mainsail
09-12	1631	FYLDKQ	Mainsail

09-12 1655	6FYEEL	Mainsail
09-12 1658	6FS7LK	Mainsail
09-12 1701	ZMTBNX	Mainsail
09-12 1707	ZMGVD4	Mainsail
09-12 1710	ZMMIGQ	Mainsail
18-12 1740	XFRMRH	for FROST
18-12 1741	ZMRFQG	
18-12 1133	TBH 33 T?	Mainsail Skyking DNA
18-12 1533	GGB 33 GT	Mainsail Skyking DNA
18-12 1536	ZMS75D	Mainsail 30 chr EAM
18-12 1600	ZMS75D	repeat
18-12 1602	ZMAHS5	Mainsail 30 chr EAM
18-12 1611	ZMBYT4	disregard
18-12 1612	GGV 12 YP	Mainsail Skyking DNA
18-12 1613	ZMBYT4	Mainsail 30 chr EAM
18-12 1618	ZMFF6R	Mainsail 30 chr EAM
18-12 1710	ZMZ5NR	Mainsail 30 chr EAM
18-12 1716	2I3BF2	Mainsail 30 chr EAM
18-12 1722	2IB2BR	Mainsail for ?? and for ?? 30 chr EAM
18-12 1734	ZMULEI	Mainsail 30 chr EAM
18-12 1800	ZMJYCU	Mainsail 30 chr EAM
18-12 1806	ZMHKGI	Mainsail 30 chr EAM
22-12 1131	AZ5 31 FX	Mainsail Skyking DNA
22-12 1142	YBG 42 ??	Mainsail Skyking DNA
22-12 1346	A7X 46 AD	Mainsail Skyking DNA
22-12 1436	2I6RDB	Mainsail for BACKDOWN? for ?? 30 chr EAM
22-12 1513	ZMHNND	Mainsail 30 chr EAM
22-12 1520	2IWMMS	Mainsail 30 chr EAM
22-12 1523	2IWMMS	repeat
22-12 1540	2IMMPRT	Mainsail 30 chr EAM
22-12 1800	ZMLZUN	Mainsail 30 chr EAM
29-12 1235	BEZ 35 NG	Mainsail
29-12 1237	BZV 37 ZW	Mainsail
29-12 1237	ZMMKBD	Mainsail
29-12 2307	ZMISVS	Mainsail
29-12 2308	ZMIE2Y	Mainsail

## RUSSIAN MILITARY TRANSCRIPTS



***RADv/RMv/RNv/RNAv/RAv***

***Russian military stations***

Frequency: various

Mode: USB / voice

### **RNAv**

#### **11354 kHz, 17-12, 1258 UTC**

Priboj (Naval Air Transports Central Sector, Moscow w/72124 (Russian Navy AN-72) reporting departure from Ostafyevo at 1307 UTC and next is Levashovo. Fuel is 7 tons and alt is 8,550 mtrs

#### **11354 kHz, 19-12, 1439 UTC**

Priboj (Naval Air Transports Central Sector, Moscow ) w/47564 (Russian Navy AN-26) reporting departure from at 1410 UTC and ETA landing at Gvardejskoe 1530 UTC w/fuel 5400 kgs. Priboj relays flt info to Kraket (Naval Air Transports Western Sector, Kaliningrad). At 1508 47564 reports ETA 1525 landing at Gvardejskoe.

**11354 kHz, 20-12**

- 1215 Priboj (Naval Air Transports Central Sector, Moscow) w/47520 (Russian Navy AN-26) reporting passing LATRI at 1214 UTC alt 5800 mtrs and fuel 2500 kgs.
- 1254 Priboj w/47520 reporting landing at Minsk at 1253 w/fuel 2000 kgs

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**RAv****11360 kHz, 17-12**

- Acft 78762 (IL-76MD) calling Proselok (Russian Air Force 566th Military Transport Aviation Regiment, Bryansk) & Korsar (Russian Air Force 6985th Aviation Base Pskov). Proselok answers and 78762 reports landing at Chkalovskij (Russian AB, Moscow) w/fuel 49 tons
- 1317 Chkalovskij w/78830 (IL-76MD) reporting landing at Rostov at 1312 UTC
- 1320 Proselok w/78817 (IL-76MD) reporting landing at Chkalovskij at 1315 UTC  
11360 kHz, 18-12
- 1159 Korsar (Russian Air Force 6985th Aviation Base Pskov) w/76553 reporting landing at (missed) w/fuel 40 tons
- 1204 Korsar w/76646 reporting 1 hour flt, alt 2800 mtrs and fuel 46 tons
- 1207 Korsar w/78844 in radio checks. At 1238 78844 (not heard) w/msg: 242 604 212 1650 MSK
- 1208 Korsar calling 78794 (IL-76MD) w/no response. At 1333 78794 (not heard) reports 213 246 605 249 38 269 280 272 604
- 1210 Korsar calling 78809 (IL-76MD) w/mo response.
- 1218 Korsar w/78815 reporting departure from Pskov at 1600 MSK w/24 tons cargo.
- 1221 Korsar w/76686 in radio checks
- 1222 Korsar w/76669 passing formatted msg: 241 1600 MSK, 243 600 242 31 tons
- 1223 Korsar w/76686 (IL-76MD) w/formatted msg: 212 1216 UTC 242 61 242 602
- 1226 Korsar w/78831 w/formatted msg.
- 1232 Korsar w/76638 reporting departure from Pskov and ETA landing at (missed) at 1850 MSK
- 1302 Korsar w/76767 reporting departure from Tolmachovo at 1656 MSK and ETA landing at Morozovk 2125 MSK w/fuel 70 tons.
- 1308 Korsar w/76743 reporting departure from Chernyakhovsk at 1643 MSK and ETA (missed) landing at Tver.
- 1310 Korsar w/78835 in radio checks.
- 1313 Korsar w/76746 reporting 2 hr flt, alt 2800 mtrs and fuel 38 tons.
- 1323 Korsar w/76626 w/msg 1322 UTC 272 603 242 604
- 1512 Proselok (Russian Air Force 566th Military Transport Aviation Regiment, Bryansk) w/86870 ( ) reporting 1 hr flt, fuel 33 tons and passing point (blkd by Korsar).
- 1603 Korsar calling 78845 (IL-76MD) w/no response. At 1618 Korsar sends 239 605 1545. Then sends 241 247 URSS 2015
- 1609 Korsar w/76686 w/msg: 646 1609 272 604. The Korsar sends 241 247 URSS (spelled) 2015. At 1615 Korsar sends 243 URSS (spelled)
- 1621 Korsar calling 78796, 78831 & 78844 w/no response.
- 1644 Korsar w/76767 reporting passing point (?GLIBEK?) at 2038 MSK. At 1821 reports landing at (missed) at 2220 MSK.

**11360 kHz, 19-12**

- 1157 Korsar w/78776 (IL-76MD) reporting departure from Tver and next is landing at Sochi.
- 1201 Korsar w/78815 reporting 1 hr flt Alt 2700 mtrs and fuel 32 tons.
- 1205 Korsar w/78845 w/msg: URSS (Sochi) 41 Syria 591 127 125 841 842
- 1208 Korsar calling 78844 w/msg: 272 603 1500 ?53.
- 1210 Korsar w/76713 (IL-76MD) reporting departure from (missed) at 1609 MSK and next is landing at Anapa.
- 1227 Korsar w/78809 w/msg: 242 ORKA (spelled) 1603 249 303
- 1228 Korsar w/76669 w/msg: ORKA (spelled) 1626 249 20
- 1229 Korsar w/78831 w/msg: 272 604 1629 272 605. At 1255 Korsar QSL's msg 247 605 1700. At 1401 Korsar QSL's msg: 204 605 1745 243.
- 1306 Acft 76842 (IK-76MD) calling Korsar w/no response.
- 1308 Acft 78844 (IL-76MD) calling Korsar w/no response. At 1411 passes msg: 237 844 212 1803 249 40
- 1345 Korsar calling 78974 w/no response. At 1355 78974 passes msg: 241 606 349 21 212 1731. At 1408 passes msg: 272 604 1754 242 603 212.
- 1348 Korsar w/78835 (IL-76MD) reporting 272 TUDEK (spelled using NATO phonetics) 212 1745. At 1412 passes msg: 247 URSS (spelled-Sochi) 212 1810 249 15
- 1351 Korsar calling 86862 (IL-76MD) w/no response.
- 1352 Korsar w/78776 (IL-76MD) repoting landing at Sochi at 1750 MSK.
- 1353 Korsar w/76719 (IL-76MD) w/msg: 247 606 1731 13.
- 1521 Korsar w/86842 reporting departure from Severomorsk-3 at (missed) next is landing at (?Savaslejka?).



1436 Korsar w/78818 reporting landing at Anapa at 1823 and next is Chkalovskij.  
 1437 Korsar w/76686 w/msg 1433 272 604.  
 1443 Korsar w/78842 (IL-76MD) w/msg 247 600 1840 fuel 16 tons.  
 1450 Korsar w/76713 (IL-76MD) w/msg 212 1843 MSK 241 Anapa 243 600. At 1508 Korsar QSL's for msg 212 1915 MSK 272 601 296. Flt info relayed to Proselok (Russian Air Force 566th Military Transport Aviation Regiment, Bryansk)  
 1456 Korsar w/82039 (AN-124--not heard) reporting PTC 1958 MSK departure from (missed) and landing at (missed) 1900 MSK w/fuel 14 tons.  
 1501 Korsar w/78818 (IL-76MD) w/msg 272 601 1900 MSK. At 1531 reports to Korsar passing point KANON (spelled) fuel 27 tons. Requests that flt info be relayed to Proselok.  
 1504 Korsar w/78796 w/msg 247 S?LL (NATO phonetics).  
 1506 Korsar w/76686 w/msg 1838 1433 272 604 1838. Korsar relays flt info to Davlenie (Russian Air Force 6958th Aviation Base Taganrog  
 1524 Korsar w/78845 w/msg 247 (point spelled-missed) 1521 fuel 35 tons. At 1638 Korsar QSL's msg 241 OSLK (spelled-Latakia Syria) 1612 243 URSS (Sochi) 249 fuel 35 tons.  
 1534 Korsar w/78809 w/msg 247 URSS (Sochi) (missed) 243 15 tons.  
 1635 Korsar w/78776 reporting landing at Chkalovskij at 2000 MSK.

#### 6685 kHz, 19-12

1726 Korsar w/76769 w/msg: 247 600 2123 MSK 249 fuel 20 tons.  
 1729 Korsar w/76613 (IL-76MD) reporting landing at Mozdok at 2120 MSK. Requests that flt info be relayed to Proselok.  
 1758 Korsar w/78809 w/msg: 241 URSS (Sochi) 2141 MSK 243 343 600 273 249 604  
 1808 Korsar w/78845 (IL-76MD) w/msg: 247 URSS (Sochi) 1805MSK 249 fuel 18 tons.  
 1818 Korsar w/78831 (IL-76MD) w/msg: 241 Sochi 2135 MSK 243 600  
 1826 Davlenie w/78794 (IL-76MD) w/msg: 213 241 URSS (Sochi) 249 41 243 600 212 2139 MSK. Requests info be relayed to Korsar.  
 1920 Acft 78844 (IL-76MD) calling Davelenie w/no response  
 2041 Korsar w/76686 (IL-76MD) relaying flt info for acft 78845 2006 UTC URSS (Sochi) 303 UUMU (Chkalovskij) 240 40 tons 11350 kHz, 20-12  
 1208 Korsar (Russian Air Force 6985th Aviation Base Pskov) w/78844 (IL-76MD) w/msg: 246 844 212 1603 249 38  
 1213 Korsar calling 76713 w/no response.

#### 11360 kHz, 20-12

1216 Korsar: 1216 USB w/76725 reporting 1 hr into flt from Tolmachovo to Morozovsk alt 2800 mtrs.  
 1217 Korsar: 1217 USB w/78815 (IL-76MD) reporting landing at Ekaterinenburg at (missed)  
 1219 Korsar: 1219 USB calling 78831 (IL-76MD) & 78796 (IL-76MD) w/no responses.  
 1224 Korsar: 1224 USB w/78835 (IL-76MD) w/msg 241 606 212 1538 243 URSS (Sochi) 240 39  
 1225 Korsar: 1225 USB w/78809 (IL-76MD) 212 1624 270 280 272 ?RN 249 24. At 1352 w/msg 237 URSS (Sochi) 1727 249 12  
 1229 Korsar: 1229 USB w/76719 (IL-76MD) 2 hr flt 242 (?Oktyabroskij?) fuel 19 tons.  
 1236 Korsar: 1236 USB w/78842 (IL-76MD) w/msg 242 land (?Zadonsk?) 1637 MSK.  
 1237 Korsar: 1237 USB w/76613 (IL-76MD) reporting landing at Chkalovskij at 1634 MSK  
 1257 Korsar w/78844 (IL-76MD) w/msg 237 844 212 1657 249 38  
 1257 Korsar w/78835 (IL-76MD) w/msg 272 603 212 1656 249 23  
 1259 Korsar w/78818 (IL-76MD) reporting departure from Anapa at 1659 w/fuel 38 tons next is Chkalovskij.  
 1302 Korsar w/76771 (IL-76MD) reporting landing at Kedr (Russian AB, Bryansk) at 1702 MSK  
 1308 Korsar w/09344 (Russian AF AN-22A) reporting departure from Novosibirsk at 1708 MSK. At 1241 09433 reports passing LATAK at alt 22  
 1309 Korsar w/76719 w/msg 247 600 1700 MSK 249 11  
 1318 Korsar calling 78796 (IL-76MD) extensively w/no responses. Acft 78818 also calling 78976 w/no response.  
 1319 Korsar w/78844 w/msg 272 600 217 1716  
 1328 Korsar w/78831 w/msg 272 600 1700 MSK. At 1340 msg 272 500 1734  
 1345 Korsar w/76604 reporting departure from Chkalovskij and landing at Ryazan at 1733 w/fuel 39 tons and cargo 48 tons.

#### 8847 kHz, 20-12

1400 Korsar w/76613 w/msg 212 1759 MSK 272 601 296.  
 1401 Korsar w/78818 reporting 1 hr flt passing KANON w/fuel 28 tons.  
 1407 Korsar w/76776 (IL-p76MD-not heard) w/msg 241 Sochi 40 tons.  
 1412 Korsar w/78976 (IL-76MD) w/msg 241 OSLK ( ) 1756 MSK 243 URSS (Sochi) 249 37 tons.  
 1414 Korsar w/76771 reporting departure from Kedr and ETA 1933 MSK landing at Pskov w/cargo 40 tons and 27 pax.  
 1415 Korsar w/76725 reporting passing (?KASET?) at alt 2800 mtrs.

**8847 kHz, 22-12**

- 1350 Korsar (Russian Air Force 6985th Aviation Base Pskov): 1350 USB w/78831 (IL-76MD-not heard) reporting landing ay Anapa at 1750 MSK
- 1358 Korsar: 1358 USB w/76714 (IL-76MD-not heard) reporting 3 hrs flt and passing point (?BAIMU?) w/fuel 35 tons.
- 1417 Korsar: 1417 USB w/76554 (IL-76MD-not heard) reporting 2 hrs flt & "ops normal". Korsar relays flt info to Proselok (Russian Air Force 566th Military Transport Aviation Regiment Bryansk)
- 1758 Korsar: 1758 USB w/Polis (Russian Air Force 6956th Aviation Base Orenburg), Davlenie (Russian Air Force 6958th Aviation Base Taganrog), Klarnetist (Russian Air Force 6955th Aviation Base Migalovo/Tver) in radio checks.

**11360 kHz, 23-12, 1404 UTC:**

Acft 76554 (IL-76MD) calling Proselok (Russian Air Force 566th Military Transport Aviation Regiment Bryansk) w/no response

**11360 kHz, 24-12**

- 1233 Korsar (Russian Air Force 6985th Aviation Base Pskov) w/86805 (IL-76MD-not heard) in radio checks.
- 1453 78831 (IL-76MD) calling Korsar w/no response.  
Korsar: 76718 reporting passing point (?GOREE?) w/fuel 30 tons
- 1508 Korsar w/78554 (IL-76MD-not heard) reporting departure from (?GALT?) and next is Ekaterninburg w/fuel 50 tons.
- 1529 78815 (IL-76MD) calling Polis (Russian Air Force 6956th Aviation Base Orenburg) w/no response.



**M32**  
***Russian/CIS/Ukrainian***  
**Military CW Stations**

The logs and transcripts are provided by Topol, JPL, MPJ

**3312 kHz, 02-12**

- 1032 UTC: P8TNDE WEF2 K  
P8TN DE WU4A K  
P8TN DE NHAC K  
P8TN DE ISLT K
- 2133 UTC: P8TN DE ISLT K

**4567.5 kHz, 07-12. Note: 2 stations (A & B)**

- 1830 (A) ...ÄFOÜI NQDJM HRFSch NJBZL IWÜKY EÖOTÖ EIHaCh VÖDRT EchKRR MYXQD GPUMI ÜFYSR ERYÖC
- 1831 (B) ZPS--ChRNN-ChRNN ZDP--  
(A) FQOÄEZ ZYI
- 1832 (B) ChRTChG ChRTG ChRTG ZDP--  
(A) PQ SQWPK ÄPMChW HÖÄWH GSGTÜ LEJPÄ BWPCChVOHP FXPChF TYYDL RTFGR
- 1833 (B) ?K ZSL? K ZGR ChHK

**5435 kHz, 08-12, 1426 UTC:**

14413 45041 89905 78047 27665 55457 42756 51096 17067  
21757 91149 08050 =  
BBIS BBIS BBIS QTC 407 52 8 1600 407 =  
73. =  
11111 81335 81450 39223 00035 85838 56496 94846 62173  
96799 53570 55575 16693 02440 94578 01758 59471 94874  
75775 56365 53609 596.0 34361 08876 03392 21770 56264  
83284 71732 45384 09383 92505 77390 75838 23227 28461  
39933 12698 28172 14413 45041 89905 78047 27665 55457  
42756 51096 17067 21757 91149 08050  
RPT AL QWI AR

**2692 kHz, 09-12, 2016 UTC:**

KX3C respondent to BHAC on 3207 kHz. KX3C OK Z... etc QYT9 K. BHAC QRJ? QYT9 K.  
KX3C QRJ3 QYT9 K. BHAC OK QJG QYT9 K.

**3207 kHz, 09-12, 2016 UTC:**

KX3C de BHAC ZVF ZTF ZVU QYT9 K. KX3C responding on 2692 kHz

**3413 kHz, 10-12, 1611 UTC:**

UXLF DE 9U2E K  
UXLF DE 9U2E K  
3AP5 DE 9U2E K  
3AP5K  
R K

**3206 kHz, 15-12, 1931 UTC:**

TSIR DE L4PL RK  
XPJT DE L4PL RK  
NDT4 DE L4PL RK  
GOYI DE L4PL RK  
CJ2W DE L4PL RK  
EH7W DE L4PL RK

**3745 kHz, 22-12, 1147 UTC:**

1SNF DE KKFO QRV K  
1SNF 354 50 22 1538 354 =  
ZEG 66AAAAA  
BK BK BK  
1SNF 354 50 22 1538 354 =  
ZEG = = AAAAA V...



**M32a**  
**Russian Navy**  
**Voyenno-Morskoy Flot Rossii**

On 29 Dec we got a mail from Trond who writes:

*Hello UDXF group,*

*Yesterday on the 28th, RIW was calling RCRE on 10676 for "zzd?".*

*RCRE is a rare bird heard at this QTH, so when looking through my log book and archive, I found to my surprise that RCRE (at least at this end, - with one exception ) is never heard in traffic with neither a home base nor a Fleet radio centre. All traffic seems to be to and from RIW. Even clear USB voice traffic RIW/RCRE has been observed in the past.*

*RCRE / RIW traffic heard on these frequencies:*

*542.0 (Not RIW related but called by RJC66 St. Petersburg naval radio)*

*8270.0 (QSO with RIW, but on a RLK7, Arkhangelsk Trawl Fleet, channel)*

*8330.0 8794.0 9110.0 9145.0 9179.5 9500.0 9684.0 11000.0 12464.0 14556.0*

*I have a feeling that RCRE is a auxiliary vessel, leased by or under "civilian contract", for Russian naval purposes. The Russian register of shipping has no info, neither has a general google search. The fact that RIW is the only naval radio in contact with this ship also indicates that it is not "navy" in the meaning of warship.*

*Any ideas, info or something from old loggings that can help me out on this one ???*

Tony replied with the following comments:

*I've only received RCRE on two days:*

*28th May 2013 on 12464 kHz*

*1111z RIW DE RCRE*

*1112z RIW DE RCRE OK QYT4 QWH 12948/11972 QSX 12414/8338*

*1121z RIW DE RCRE QYT4 QSX 9700 OK?*

*24th September 2012 on 8345 kHz*

*0649z VVV RIW DE RCRE*

*0651z RIW DE RCRE*

*0652z RCRE OK QWH 12084*

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#### **6346 kHz, 05-12, 0900 UTC**

RIT: RUSSIAN NAVY HQ SEVEROMORSK: RLO RLO RLO DE RIT RIT QTC 322 34 5 1257 322 = RADIOPROGNOZ 05131 03 50000

#### **8345 kHz, 05-12**

0606 RMGB: RUSSIAN NAVY TANKER IMAN. RCV DE RMGB 671 19 5 1000 671 = SML FOR RJH45 RJE73 = 05061 99403 10265  
41698 33605 10040 40190 54000 70121 85000 22252 00120 20101 88000 80000 05015 = + RMGB K

0620 RBIZ: RUSSIAN NAVY SHIP AMUR PM-138. RCV DE RBIZ 15 17 5 1000 195 = FOR RJE73 RJH45 = 05061 99349 10358  
41598 60906 10140 40110 58002 70302 86210 22200 10200 20000 88000 05014 = + RBIZ K

#### **12464 kHz, 06-12**

1156 RCV DE RHV42 473 16 6 1530 473 = FOR RJE73 RJH45 = 06121 99347 10315 41598 22002 10271 40173 58009 70100  
82220 22272 00203 20101 06013 = + RHV42 K

1204 NAVY TANKER IMAN. RCV DE RMGB 154 19 6 1600 154 = FOR RJH45 RJE73 = 06121 99363 10270 41698 33204 10160  
40150 54000 70300 83210 22232 00180 20201 06016 = + RMGB K

#### **6346 kHz, 06-12, 0900 UTC**

RIT: RUSSIAN NAVY HQ SEVEROMORSK. RLO RLO RLO DE RIT RIT QTC 386 34 7 1257 386 = RADIOPROGNOZ 07123 63003 40001

#### **12464 kHz, 07-12**

1211 RIW DE RJ169 232 30 7 1600 323 = FM RJ169 FOR RJT = 11111 08264 77426 54803 ...

#### **12464 kHz, 09-12**

RMGB 99561 ZAWODILA 5626 8072

RBIZ 99561 ZAWODILA 5626 8072

RFH70 99561 ZAWODILA 5626 8072

#### **4041 kHz, 15-12**

2004 VVV RMP DE RIQ97 ZSD?

2005 RMP DE RIQ97 ZSD3 ZKM ZDR

2008 YDZKYEÜBAFJCHÜÄEFKDBMVYWOVEUUDOCJLCAUGKRYSRNC

#### **5928.5 kHz, 13-12, 2100 UTC:**

RLO DE RIT QTC 811 34 14 0057 811 =

RADIOPROGNOZ

14123 03003 30001 00001 00006 30090

00002 00006 30020 00005 00006 40011

00006 00006 40012 00102 00006 30009

00001 00613 30010 00002 00612 40011

00005 00614 50012 00006 00612 50013

00102 00612 40010 +

#### **8345 kHz, 18-12**

---- XXX XXX RMP RMP CHAHENNYJ 32533 73500 01140 01111 18014 86807 00532 01205

0820 RJF94 RJC38 DE 47525 QTO 0800 QRD XLAA XLMV QBD 4300 QRE 0930 K QTH ULMM (MURMANSK) 124270 QTR 0840  
QBG 5200 QBD 3200 K QQM 0927 SK

**8816 kHz, 18-12**

1044 RJF94 RJC38 DE 47525 QTO 1030 QRD XLMV XLAA QBD 5100 QRE 1230 K QTH XLMF 114100 QTR 1135 QBG 5500 QBD  
3400 K QQM XLMV 1226 SK

**5823 KHz, 21-12, 1600 UTC:**

RGH2 DE RAL2 QSA? K  
RAL2 DE RGH2 QSA1 K  
QSA 4 ZNN ZNN  
VA VA  
RMW2 DE RAL2 QSA? K  
RAL2 DE RMW2 QSA1 Q EE QSA1? K  
QSA3 ZNN ZNN  
VA VA  
RHQ2 DE RAL2 QSA? K  
RAL2 DE RHQ2 QSA4 K  
QSA4 ZNN ZNN  
VA VA  
RBL66 DE RAL2 QSA? K  
RAL2 DE RBL66 QSA ..  
QSA 4 ZNN ZNN  
VA VA VVV

**16112 kHz, 18-12**

0718 RCC - PETROPAVLOVSK KAMCHATSKIY WKG RJE56: RJE56 RJE56 DE RCC RCC QSA 2 K  
0715 RJE56 – MOSKVA WKG RJS: VVV RJS DE RJE56 K RJS DE RJE56 K  
0729 RJE56 DE RJE67 K RJE67 QYT4 K K  
0716 RJS – VLADIVOSTOCK WKG RJE56: RJE56 DE RJS QSA3 QSA3 K

**3353 kHz, 28-12**

0012 RJE65 DE REL5 551 19 28 0400 551 = FOR RJH45 RJE73 RJE65 = 28001 99443 10351 41/97 02505 10100 40226 54000  
70000 80000 22263 00090 20000 88000 80000 28015 = + REL5 K  
0008 RMUW: RUS NAVY TUG SHAKTER: RJE65 DE RMUW 909 17 28 0400 909 = SML FOR RJE73 RJH45 = 28001 99435 10398  
41997 10502 10100 40170 54000 70100 81001 22200 00100 1000 28013 = + RMUW K  
0015 REL5: NAVY NOVOROSSIJSK RJE65 DE REL5 993 30 28 0415 993 FOR RCV = 11111 46400 15166 ..... = + REL5 K

**6319 kHz, 28-12, 2100 UTC:** RLO RLO RLO DE RIT RIT QTC 274 34 29 0057 274 = RADIOPROGNOZ 29123 03003 30000

**8345 kHz, 28-12, 1642 UTC:** RIT DE RMMA QYT9 QSA4 K

**12464 kHz, 28-12,**

1215 RMGB: NAVY TANKER IMAN. RCV DE RMGB 28 19 28 1605 248 = SML FOR RJH45 RJE73 = 28121 99353 10354 41697 71...  
10210 40130 57035 70312 87202 22262 00160 20304 88000 80000 28015 = + RMGB K  
RGZ59: NAVY LS NIKOLAY FILCHENKOV (152). RCV DE RGZ59 QSA1 K OK QTC K OK QSL 885 K 20  
RGR70 49228 WOZVELANIE 4369 0453 K  
RMGB 49228 WOZVELANIE 4369 0453 K  
RHV42 49228 WOZVELANIE 4369 0453 K  
RMGB 83495 SPARVEWINA 6311 1917 K  
RFH70 83495 SPARVEWINA 6311 1917 K  
RHV42 83495 SPARVEWINA 6311 1917 K

**8345 kHz, 28-12**

0003 VVV RCV DE RMGB QSA? QTC  
0005 RMGB 707 17 28 0400 707 = SML FOR RJH45 RJE73 = 28001 99348 10341 22222 (34.8N 34.1E heading E @ 6-10kts  
<http://goo.gl/maps/lZgao>)  
0100 VVV RIT DE RMMA QSA?  
0101 RIT DE RMMA QSA4  
0602 VVV RCV DE RMGB QSA? QTC  
0603 RMGB 193 19 28 1000 193 = SML FOR RJH45 RJE73 = 28061 99350 10354 22222 (35.0N 35.4E heading E @ 6-10kts  
<http://goo.gl/maps/Wwz3h?>)

**3395.5 kHz, 28-12, 2206 UTC:** RCV DE RLD69 QSA2 (sets up QYT4)

**3395.5 kHz, 29-12**

0012 VVV RCV DE RMUW QSA? QTC

0013 RMUW 841 16 29 0400 841 = SML FOR RJE73 RJH45 = 29001 99434 10398 22200 (43.4N 39.8E Hove to Sochi  
<http://goo.gl/maps/r8idQ>)

0027 RMGB DE RCV QSA1 QRV

0028 RCV NR 732 RPT AL

0049 RLD69 DE RCV QSA?

Note from Tony: The interesting thing about RMUWs position off Sochi is that's where all the IL76s have been operating through to deliver vehicles to assist with Chemical cleansing equipment to Syria

**8345 kHz, 29-12**

1734 ??? DE RHI99 QSA?

1748 VVV RCV DE RFH70 QSA?

1749 RCV DE RFH70 QYT4 QSX 5322/6912

1802 VVV RCV DE RMGB QSA? QTC

1805 RCV DE RMGB QSA NO

1840 VVV RCV DE RHV42 QSA?

**3396 kHz, 31-12, 1927 UTC:**

RLD69 DE RCV QYT K

QSX 5578 AAA 5

RLD69 OK QYT 4 QWH 4 578 AAA5 K

RCV R K

RCV DE RLD69 QYT 4 QSX 5042 AAA 5 K

RCV AS 1



**M32b**

**Russian Naval Aviation**

**Aviatsiya Voenno-morskogo Flota Rossii**

**8816 kHz, 05-12**

0744 85282: RUSSIAN NAVAL AIR TRANSPORT. RJF94 RCB DE 85282 QTO 0730 QRD XUEH (KHOTILOVO) XMKK  
(HRABROVO/KALININGRAD) QRE 1130 QAH 5800 QBD 4600 K - QTH 5820 2046 QTR 0841 QAH 5800 QBD 3900 K - QQL  
ULLI (PULKOVO) 0957 QAL XUEH 1055 QAH 5800 QBD 2700 K

1215 RJF94 RCB DE 85282 QTO 1203 QRD XUOW XUEH QRE 1435 QAH 5500 QBD 4700 K - QL UUOD 1314 QAL XUOW 1405  
QAH 5800 QBD 3800 K

1355 RJF94 RJC38 DE 47530 QTO 1340 QRD XLMV (SEVEROMORSK-3) XLLV (LEVASHOVO) QBD 5400 QRE 1700 K - QTH 6207  
3251 QTR 1450 QBG 5800 K

**8816 kHz, 06-12**

0900 RJF94 RCB DE 85282 QQL URRR (ROSTOV ON DON) 0856 QAL URKA (ANAPA) 0946 QAH 5800 QBD 3700 K - QQM URKA  
0944 K

1213 RJF94 RCB DE 85282 QTO 1140 QRD XRAP (WOLGA) URKA (ANAPA) QRE 1400 QAH 6700 QBD 5300 K - QAY URMD 1245  
QAL XRAP 1345 QAH 6700 QBD 4800 K - QQM XRAP 1340 SK

1522 RJF94 RCB DE 85282 QTO 1500 QRD XRKE XRAP QRE 1730 QAH 5500 QBD 4500 K

**8816 kHz, 09-12**

0945 RJF94 RCB DE 85282 QTO 0930 QRD XUMO XRRO QRE 1200 QAH 5500 QBD 4600 K - QQL UUOO 1037 QAL XUMO 1140  
QAH 5500 QBD 3700 K

0955 RJF94 RCB DE 93004 QTO 0930 QRD XUMO XLLV QAH 5200 QBD 0500 K - QAY XUEH 1041 QAH 5200 QAL XUMO 1138  
QBD 0330 K - QQM XUMO 1133 SK

0845 RJF94 RCB DE 85282 QQL UUWR 0841 QAL XLLV 0940 QAH 5500 QBD 3500 K

0813 RJF94 RJC38 DE 47536 QTO 0800 QRD XLWF XLMV QBD 4700 QRE 1050 K - QQL ULPE 0910 QBG 5800 QBD 3200 K - QAY  
XLPB 1003 QBG 5800 QBD 2500 K

1135 RJF94 RCB DE 85282 QTO 1114 QRD XMKK XLLV QRE 1545 QAH 5500 QBD 4400 K - QTH 5820 2040 QTR 1439 QAL XMKK



1530 QAH 5500 QBD 3300 K - QQM XMKK 1525 SK

1448 RJF94 RJC38 DE 47536 QTO 1435 QRD XLMV XLWF QBD 5200 QRE 1735 K - QAY XLPB 1537 QBG 5500 QBD 3600 QRE  
XLMV 1800 K - QQL ULPE 1632 QBG 5500 QBD 2800 K - QQL XLMF 1720 QBG 5500 QBD 2100 K

#### 8816 kHz, 10-12, 1407 UTC:

DE RJF94 QSA? K  
RJF94 DE RCB\* QSA 2 K  
RJF94 R K  
VV RJC48 DE RJF94 QSA? K  
RJF94 DE RJC48 QSA 2 K  
RJF94 R K

#### 8816 kHz, 28-12, 1304 UTC:

RJF94 RCB DE 93004 QTO 1200 QRD XMKK XLLV QRE 1500 QAH 5500 QBD 4800 K QAY EETT 1303 QAH 5500 QBD 3600 K QTH  
5741 2016 QTR 1400 QAL XMKK 1458 QAH 5500 QBD 2800 K QQM XMKK 1455 SK

## LOGS SECTION

enigma	date	UTC	day	frequency	remarks	mode	contributor
---	6-12-2013	1526	Fri	3329	Unid 10-mins net: WORZ repeated till 1530 UTC	CW	(JPL-Sib)
---	6-12-2013	1540	Fri	3363	Unid 10-mins net: BG5Y faded out at 1546 UTC	CW	(JPL-Sib)
---	6-12-2013	1843	Fri	3363	Unid 10-mins net: BG5Y	CW	(JPL-Sib)
---	6-12-2013	1848	Fri	4260	DE 3PPO K	CW	(JPL-Sib)
---	7-12-2013	1641	Sat	3363	Unid 10-min net: BG5Y	CW	(AtB)
---	7-12-2013	1705	Sat	3363	Unid 10-min net: BG5Y	CW	(AtB)
---	8-12-2013	1942	Sun	3363	Unid 10-min net: BG5Y	CW	(JPL-Sib)
---	16-12-2013	1830	Mon	5445	i.p. NR 3W EEEE NR 31.. DE VSK7 QSA2 NR NR ...0 K. R SK. DE VSK7 QSA2 NR NR 3.. K. R SK VV BDQ7 DE VSK7 QSA ... K	CW	(JPL-Sib)
---	29-12-2013	1820	Sun	3987	Unid 10-min net: WORZ	CW	(AtB)
---	29-12-2013	1850	Sun	3987	Unid 10-min net: WORZ	CW	(AtB)
CHN	6-12-2013	0043	Fri	9219	Chinese diplo	LSB 4+4 75	(MCO)
CHN	11-12-2013	1125	Wed	18381	Chinese diplo. 4FG messages.	LSB 4+4 75	(EW)
CHN	12-12-2013	1027	Thu	10902	Chinese diplo. 4FG messages.	LSB 4+4 75	(EW)
CHN	12-12-2013	1145	Thu	8073	Chinese diplo. 3FG messages. 025 773 357 373 417 993 447 385 480 486 (see N&O 195)	LSB 4+4 75	(EW)
CHN	12-12-2013	1145	Thu	18051	Chinese diplo. 4FG messages.	LSB 4+4 75	(EW)
CHN	13-12-2013	1045	Fri	13160	Chinese diplo. 4FG messages.	LSB 4+4 75	(EW)
DPRK	7-12-2013	0100	Sat	18525	N. Korean diplo	DPRK-ARQ 600/600	(Dan)
DPRK	8-12-2013	0927	Sun	14712	N. Korean diplo	DPRK-ARQ 600/600	(EW)
DPRK	8-12-2013	1341	Sun	14442.5	North Korean diplo	DPRK-ARQ 600/600	(PPA)
DPRK	9-12-2013	1053	Mon	18176	N. Korean diplo	DPRK-ARQ 600/600	(EW)
DPRK	10-12-2013	2330	Tue	16003	N. Korean diplo	DPRK-ARQ 600/600	(Dan)
DPRK	11-12-2013	0822	Wed	20412	N. Korean diplo	DPRK-ARQ 600/600	(EW)
DPRK	11-12-2013	1053	Wed	18525	N. Korean diplo	DPRK-ARQ 600/600	(EW)
DPRK	11-12-2013	1118	Wed	24129	N. Korean diplo	DPRK-ARQ 600/600	(EW)
DPRK	13-12-2013	0933	Fri	14444	N. Korean diplo	DPRK-ARQ 600/600	(EW)
DPRK	13-12-2013	1111	Fri	21325	N. Korean diplo	DPRK-ARQ 600/600	(EW)
DPRK	13-12-2013	2300	Fri	16003	N. Korean diplo. Audio transmission with music in back- ground like an open microphone.	DPRK-ARQ 600/600	(Dan)
DPRK	14-12-2013	0132	Sat	14743	N. Korean diplo. Audio transmission with music in back- ground like an open microphone.	DPRK-ARQ 600/600	(Dan)
DPRK	14-12-2013	0200	Sat	16121	N. Korean diplo.	DPRK-ARQ 600/600	(Dan)
DPRK	14-12-2013	0200	Sat	16320	N. Korean diplo.	DPRK-ARQ 600/600	(Dan)
DPRK	15-12-2013	0215	Sun	16320	N. Korean diplo.	DPRK-ARQ 600/600	(Dan)
DPRK	20-12-2013	1311	Fri	14858.4	North Korean diplo	DPRK-ARQ 600/600	(PPA)
DPRK	24-12-2013	2300	Tue	16003	N. Korean diplo	DPRK-ARQ 600/600	(Dan)

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DPRK	25-12-2013	1618	Wed	19960	North Korean Embassy, Europe/North or West Africa	DPRK-ARQ 600/600	(MCO)
DPRK	26-12-2013	1256	Thu	14444	North Korean Embassy, Europe	DPRK-ARQ 1200/1200	(MCO)
DPRK	26-12-2013	1358	Thu	20130.2	tfc two North Korean Embassies, Europe/Africa wkg simplex b	DPRK-ARQ 600/600	(MCO)
E06	11-12-2013	1920	Wed	3526	218 218 218 00000	AM	(AB/RWO/G Hn)
E06	19-12-2013	2030	Thu	4836	i.p. badly broken synth voice ... 594 20 37839 35787 98273 80187 18202 ... (unreadable)	USB	(MPJ)
E06	20-12-2013	2130	Fri	4760	472 691 20 81249	USB	(HFD)
E07	5-12-2013	2110	Thu	6777	774 774 774 000	USB	(MPJ)
E07	5-12-2013	2130	Thu	5449	744 744 744 000	USB	(Topol)
E07	11-12-2013	2020	Wed	6778	472 1	USB	(HFD)
E07	11-12-2013	2040	Wed	5278	472 1	USB	(HFD)
E07	15-12-2013	1800	Sun	7464	485 1 301 119 8400	USB	(HFD)
E07	15-12-2013	1820	Sun	5864	481 1	USB	(HFD)
E07	15-12-2013	1840	Sun	4564	481 1	USB	(HFD)
E07	15-12-2013	1840	Sun	4564	485 1 301 119 84009 49285 66566 ... 72042 10010 2536? 000 000	USB	(Topol)
E07	19-12-2013	2130	Thu	5449	774 774 774 000	USB	(MPJ)
E07	29-12-2013	1840	Sun	4564	485 1 877 141 61051 ....	USB	(RWO)
E07a	4-12-2013	2100	Wed	5864	815 815 815 000	USB	(MPJ)
E07a	7-12-2013	0920	Sat	12221	124 124 124 000	USB	(Topol)
E07a	14-12-2013	0900	Sat	11121	124 1 17279 8983 7	USB	(HFD)
E07a	14-12-2013	0920	Sat	12221	124 1 17279	USB	(HFD)
E07a	14-12-2013	0940	Sat	13421	124 1 17279	USB	(HFD)
E07a	21-12-2013	0900	Sat	11121	124 124 124 000	USB	(RWO)
E07a	26-12-2013	0530	Thu	5146	188 188 188 00000	USB	(RWO)
E11	1-12-2013	1540	Sun	15632	228/00	USB	(GHn)
E11	1-12-2013	1540	Sun	15632	228/00	USB	(MPJ)
E11	3-12-2013	1300	Tue	14666	133/35 40456	USB	(HFD)
E11	4-12-2013	1445	Wed	4441	287/00	USB	(MPJ)
E11	5-12-2013	1155	Thu	15632	718/00	USB	(MPJ)
E11	5-12-2013	1730	Thu	5082	416/00	USB	(Topol)
E11	7-12-2013	0900	Sat	4441	248/00	USB	(RWO)
E11	7-12-2013	0900	Sat	4441	248/00	USB	(Topol)
E11	7-12-2013	1445	Sat	4441	287/00	USB	(MPJ)
E11	9-12-2013	1540	Mon	15632	228/00	USB	(Topol)
E11	11-12-2013	0900	Wed	9446	537/36 attn 67141	USB	(FN)
E11	11-12-2013	1020	Wed	8091	221/00	USB	(FN)
E11	12-12-2013	1730	Thu	5062	416/00	USB	(RWO)
E11	14-12-2013	1445	Sat	4441	287/00	USB	(Topol)
E11	18-12-2013	1155	Wed	15632	718/00	USB	(MPJ)
E11	18-12-2013	1445	Wed	4441	288/37 attention 92435 84964 08109 34234 25129 ... (becomes unreadable)	USB	(MPJ)
E11	19-12-2013	0820	Thu	8088	438/00	USB	(HFD)
E11	19-12-2013	1730	Thu	5082	416/00	USB	(MPJ)
E11	21-12-2013	0900	Sat	4441	246/00	USB	(RWO)
E11	22-12-2013	1540	Sun	15632	228/00	USB	(MPJ)
E11	23-12-2013	1540	Mon	15632	228/00	USB	(MPJ)
E11	24-12-2013	0640	Tue	7840	517/00	USB	(GHn)
E11	24-12-2013	0710	Tue	10800	633/00	USB	(RWO)
E11	24-12-2013	1045	Tue	12153	577/34 17475	USB	(HFD)
E11	26-12-2013	0745	Thu	16112	335/00	USB	(AB/RWO)
E11	28-12-2013	1445	Sat	4441	287/00	USB	(MPJ)
E11	29-12-2013	1540	Sun	15632	228/00	USB	(MPJ)
E11	31-12-2013	0645	Tue	7840	517/00	USB	(RWO)
E11a	2-12-2013	1540	Mon	15632	222/10	USB	(07c)

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E11a	2-12-2013	1710	Mon	6923	953/29 attention 19387 21103 71500 16631 26833 ... 45336 13185 74899 25533 86977	USB	(MPJ)
E11a	3-12-2013	1400	Tue	10690	986/10 attention 78229 87667 58892 65309 51497 42148 89492 25732 44913 51287	USB	(MPJ)
E11a	6-12-2013	1710	Fri	6923	951/20 sttention 35055 88796 52753 65492 29747 ... 06690 17028 00111 39344 49545	USB	(MPJ)
E11a	7-12-2013	1400	Sat	10690	981/10 Attention 32892 90598 69172 96148 07226 01860 90536 38491 42331 57837 Attention (Repeats groups) Out	USB	(Topol/MPJ)
E11a	7-12-2013	1810	Sat	10213	983/10 attention 98218 .8713 03889 94333 47..2 2.859 72706 00446 54552 53100	USB	(MPJ)
E11a	8-12-2013	1540	Sun	15632	222/30 Attention 93672 45699 55047 ... 28374 71710 11493 Attention (repeats groups) Out	USB	(Topol)
E11a	9-12-2013	1710	Mon	6923	951/30 attention 57891 15274 00681 67157 24084 ... 87393 51097 77252 30372 74686	USB	(MPJ)
E11a	9-12-2013	1710	Mon	6923	951 30 Attention 57891 15874 00681 ... 77252 30372 74686 Attention, (Repeats groups), Out	USB	(Topol)
E11a	10-12-2013	1810	Tue	10213	985/10 attention 17033 33591 79657 16118 91580 90338 06862 86553 08164 98393	USB	(MPJ)
E11a	14-12-2013	1400	Sat	10690	981 10 Attention 23455 64936 61591 21053 41291 40199 66340 86825 83340 85378 Attention (repeats groups) Out	USB	(Topol)
E11a	14-12-2013	1810	Sat	10213	982 10 ?????	USB	(Topol)
E11a	17-12-2013	1400	Tue	10690	985/10 attention 52226 29895 84842 39531 05790 ... 39397 63872 02017 29263 90936	USB	(MPJ)
E11a	20-12-2013	1710	Fri	6923	957/23 attention 50486 55351 56280 34609 30635 ...95437 75518 22559 92892 23627	USB	(MPJ)
E11a	21-12-2013	1810	Sat	10213	987/10 attention 24165 42429 98971 15260 64211 36933 38474 87635 85561 10859 attention, rpt msg, out	USB	(RWO)
E11a	23-12-2013	1710	Mon	6923	953/23 attention 66768 26184 20093 31373 82331 ... 16026 62695 39536 25121 03655	USB	(MPJ/RWO)
E11a	24-12-2013	1810	Tue	10213	984/10 attention 75337 08508 83118 12895 89756 51515 24174 69243 52553 00949 attention, rpt msg, out	USB	(RWO)
E11a	28-12-2013	1400	Sat	10690	981/10 attention 54762 80503 49728 95750 19155 15796 13490 85497 00136 95701	USB	(MPJ)
E11a	28-12-2013	1810	Sat	10213	982/10 attention 45767 84725 58871 72889 55743 16433 17344 84288 52817 54444	USB	(MPJ/RWO)
E11a	30-12-2013	1710	Mon	6923	955/20 attention 11098 52895 82739 59160 75278 ... 20481 15323 73234 98826 32973	USB	(MPJ)
E11a	31-12-2013	1400	Tue	10690	981/10 attention 35051 06825 93896 36840 74303 31849 36004 69596 35889 61597	USB	(MPJ)
E11a	31-12-2013	1810	Tue	10213	982/10 attention 05171 83141 60914 43653 59587 04933 36004 54981 96994 60238	USB	(MPJ)
E17z	26-12-2013	0800	Thu	11170	764 812 5 88280 84116 53781 78924 34694 812 5 00000	USB	(RWO)
EGY	1-12-2013	1513	Sun	16067.7	MFA Cairo clg RCVB Kinshasa	SITOR-A 100/170	(PPA)
EGY	6-12-2013	1156	Fri	19162	Egyptian MFA, Cairo "99902" secure tfc to "44406" Egyp- tian embassy New Delhi	Codan 16 tone	(MCO)
EGY	18-12-2013	0808	Wed	19100	MFA Cairo	SITOR-A	(LG2)
EGY	18-12-2013	0809	Wed	20124	MFA Cairo	SITOR-A	(LG2)
EGY	18-12-2013	1000	Wed	19345	MFA Cairo	SITOR-A	(LG2)
EGY	19-12-2013	0909	Thu	19100	MFA Cairo	SITOR-A	(LG2)
EGY	21-12-2013	0919	Sat	13521.8	MFA Cairo clg Egyptian embassy Pyongyang "OOVF"	SITOR-A	(DK8OK)
EGY	21-12-2013	0942	Sat	12525.1	MFA Cairo clg unid embassy "MKCV"	SITOR-A	(DK8OK)
EGY	21-12-2013	0948	Sat	12480.1	MFA Cairo clg unid embassy "XVSV"	SITOR-A	(DK8OK)
EGY	21-12-2013	1150	Sat	12530.6	MFA Cairo clg unid embassy "MKCV"	SITOR-A	(DK8OK)
EGY	30-12-2013	----	Mon	16223.7	Egyptian MFA clg RCVB, Egyptian embassy Washington	SITOR-A 100/170	(PH)
EGY	30-12-2013	0830	Mon	18241.7	Egyptian MFA clg KKVE, Egyptian embassy Bamako	SITOR-A 100/170	(PH)
EGY	30-12-2013	0843	Mon	18472.7	Egyptian MFA clg KKVI, Egyptian embassy Dar Es Salaam	SITOR-A 100/170	(PH)
EGY	30-12-2013	0857	Mon	19101.7	Egyptian MFA (99903) clg 44403, Egyptian embassy Jakar- ta	Codan Chirp	(PH)

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EGY	30-12-2013	1124	Mon	18472.7	Egyptian MFA clg TVXX, Egyptian embassy Sanaa + Codan Chirp Selcall 011	SITOR-A 100/170 + Codan chirp	(PH)
EGY	30-12-2013	1333	Mon	22667.7	Egyptian MFA, Cairo clg "KKVA" Embassy Lagos	SITOR-A 100/170	(MCO)
EGY	30-12-2013	1555	Mon	20901.7	Egyptian Embassy, Luanda with ATU-80 tfc to MFA Cairo	SITOR-A 100/170	(MCO)
G06	2-12-2013	1800	Mon	4515	564 564 564 00000	USB	(MPJ)
G06	9-12-2013	1620	Mon	3673	Test counts 01234 and 56789	AM	(MPJ)
G06	9-12-2013	1700	Mon	3673	564 564 564 00000	AM	(GHn/MPJ/H FD/Topol)
G06	9-12-2013	1718	Mon	4515	Test count 56789	AM	(GHn)
G06	9-12-2013	1725	Mon	4515	21234	AM	(GHn)
G06	9-12-2013	1800	Mon	4515	564 564 564 00000	AM	(GHn/Topol)
G06	12-12-2013	1830	Thu	4519	271 846 20 ..... 846 20 00000	AM	(RWO)
G06	13-12-2013	1930	Fri	4792	436 789 20 ..... 789 20 00000	AM	(RWO)
G06	13-12-2013	1930	Fri	4792	436 789 20 92611 69428 538?1 ... 09895 14765 56531 789 20 00000	USB	(Topol)
G06	16-12-2013	0800	Mon	5463	215 215 215 00000	USB	(HFD)
G06	20-12-2013	2130	Fri	4760	472 891 (691?) 20 81249 09517 93028 85982 25187 ... 71483 69205 52381 42427 89636 691 20 00000	USB	(MPJ)
G06	27-12-2013	1930	Fri	4792	536 789 20 92411 69428 53871 76397 15673 18367 98356 25478 26743 86464 73852 53986 21496 53428 89657 26481 76534 09895 14765 06531 789 20 00000	USB	(Gwr)
G06	27-12-2013	1930	Fri	4792	436 789 20 92411	USB	(HFD)
G11	1-12-2013	1755	Sun	6433	270/00	USB	(MPJ/RWO)
G11	1-12-2013	2000	Sun	4441	262/00	USB	(GHn)
G11	3-12-2013	1755	Tue	6433	270/00	USB	(MPJ)
G11	6-12-2013	1325	Fri	6433	290/00	USB	(MPJ)
G11	6-12-2013	2000	Fri	4441	262/00	USB	(MPJ)
G11	7-12-2013	1325	Sat	6433	299/00	USB	(Topol)
G11	8-12-2013	1755	Sun	6433	270/00	USB	(PPA)
G11	8-12-2013	1755	Sun	6433	270/00	USB	(Topol)
G11	8-12-2013	2000	Sun	4441	262/00	USB	(PPA)
G11	8-12-2013	2000	Sun	4441	262/00	USB	(Topol)
G11	10-12-2013	1755	Tue	6433	270/00	USB	(MPJ)
G11	13-12-2013	2000	Fri	4441	265 30 Achtung 28412 25029 71320 ... 79732 38232 78764 Achtung (Repeats groups) Ende	USB	(Topol)
G11	14-12-2013	1325	Sat	6433	299/00	USB	(Topol)
G11	15-12-2013	1755	Sun	6433	270/00	USB	(Topol)
G11	15-12-2013	2000	Sun	4441	265/30 attention ...	USB	(RWO)
G11	15-12-2013	2000	Sun	4441	265 30 Achtung 28412 25029 71320 ... 79732 39232 78764 Achtung (Repeats groups) Ende	USB	(Topol)
G11	17-12-2013	1755	Tue	6433	271/32 Achtung 11304 31143 40614 12304 89783 ... 53894 13682 06270 71135 33879	USB	(MPJ)
G11	20-12-2013	2000	Fri	4441	262/00	USB	(MPJ/GHn)
G11	22-12-2013	1755	Sun	6433	271/32 attention 11304 31143 40614 12304 89783 ... 53894 13682 06270 71135 33879	USB	(MPJ/RWO)
G11	22-12-2013	2000	Sun	4441	262/00	USB	(MPJ/GHn)
G11	28-12-2013	1325	Sat	6433	299/32 Achtung_81_6 26025 72980 8_985 ... 53362 07727 89986 ... 37102 66310 ...	USB	(MPJ)
G11	29-12-2013	1755	Sun	6432	270/00	USB	(MPJ)
G11	29-12-2013	2000	Sun	4441	262/00	USB	(MPJ)
HM01	30-11-2013	2300		17540	88606 56512 46771 37453 27805 71261	AM/RDFT	(Dan)
HM01	1-12-2013	1629	Sun	11435	88606 etc	AM/RDFT	(DSch)
HM01	1-12-2013	1705	Sun	11530	Late start	AM/RDFT	(DSch)
HM01	1-12-2013	1803	Sun	11635	88606 etc	AM/RDFT	(DSch)
HM01	1-12-2013	2100	Sun	11635	88606 etc	AM/RDFT	(DSch)
HM01	1-12-2013	2216	Sun	10715	88606 etc	AM/RDFT	(DSch)
HM01	1-12-2013	2300	Sun	11530	88606 56512 46771 37453 27805 71261	AM/RDFT	(Dan)
HM01	1-12-2013	2334	Sun	11530	88606 etc	AM/RDFT	(DSch)

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HM01	2-12-2013	1623	Mon	11435	88606 etc	AM/RDFT	(DSch)
HM01	2-12-2013	1714	Mon	11530	88606 etc	AM/RDFT	(DSch)
HM01	2-12-2013	1758	Mon	11635	88606 etc	AM/RDFT	(DSch)
HM01	2-12-2013	2058	Mon	11635	88606 etc	AM/RDFT	(DSch)
HM01	2-12-2013	2209	Mon	10715	88606 etc	AM/RDFT	(DSch)
HM01	2-12-2013	2258	Mon	11530	88606 etc	AM/RDFT	(DSch)
HM01	3-12-2013	1623	Tue	11435	88606 56512 46771 3753 2780 71261	AM/RDFT	(DSch)
HM01	3-12-2013	1711	Tue	11530	88606 etc	AM/RDFT	(DSch)
HM01	3-12-2013	1759	Tue	11635	88606 etc	AM/RDFT	(DSch)
HM01	3-12-2013	2102	Tue	16180	88606 etc	AM/RDFT	(DSch)
HM01	3-12-2013	2316	Tue	17540	Sig there but weak and very bad fading	AM/RDFT	(DSch)
HM01	4-12-2013	1736	Wed	11530	88606 56512 46771 37453 27805 71261	AM/RDFT	(DSch)
HM01	4-12-2013	1758	Wed	11635	88606 56512 46771 37453 27805 71261	AM/RDFT	(DSch)
HM01	4-12-2013	2102	Wed	11635	88606 56512 46771 37453 27805 71261	AM/RDFT	(DSch)
HM01	4-12-2013	2200	Wed	10715	88606 56512 46771 37453 27805 71261	AM/RDFT	(DSch)
HM01	4-12-2013	2331	Wed	11530	88606 56512 46771 37453 27805 71261	AM/RDFT	(DSch)
HM01	5-12-2013	1729	Thu	11530	88606 56512 46771 37453 27805 71261	AM/RDFT	(DSch)
HM01	5-12-2013	1807	Thu	11635	88606 56512 46771 37453 27805 71261	AM/RDFT	(DSch)
HM01	5-12-2013	2116	Thu	16180	Repeats uno uno uno and M08a is also running. M08a stops at 2117. New gourps are 56801 22574 15441 50182 08444 51835	AM/RDFT	(DSch)
HM01	5-12-2013	2231	Thu	17480	56801 22574 15441 50182 08444 51835	AM/RDFT	(DSch)
HM01	5-12-2013	2355	Thu	17540	56801 22574 15441 50182 08444 51835	AM/RDFT	(DSch)
HM01	6-12-2013	0500	Fri	5855	22574 15441 50182 08444 51835 83881	AM/RDFT	(SFNY)
HM01	6-12-2013	0700	Fri	9330	22574 15441 50182 08444 51835 83881	AM/RDFT	(SFNY)
HM01	6-12-2013	1827	Fri	11635	Two different sets of groups being transmitted at the same time	AM/RDFT	(DSch)
HM01	6-12-2013	2219	Fri	10715	66205 80854 83382 40842 04242 44654	AM/RDFT	(DSch)
HM01	7-12-2013	1600	Sat	11435	Repeat of September 2013	AM/RDFT	(DSch)
HM01	7-12-2013	1700	Sat	11530	Repeat of September 2013	AM/RDFT	(DSch)
HM01	7-12-2013	1800	Sat	11635	Repeat of September 2013	AM/RDFT	(DSch)
HM01	7-12-2013	2100	Sat	16180	Repeat of September 2013	AM/RDFT	(DSch)
HM01	7-12-2013	2200	Sat	17540	Repeat of September 2013	AM/RDFT	(DSch)
HM01	7-12-2013	2300	Sat	17540	51835 56801 22574 15441 50182 08444	AM/RDFT	(Dan)
HM01	7-12-2013	2300	Sat	17540	Repeat of September 2013	AM/RDFT	(DSch)
HM01	8-12-2013	0700	Sun	9330	22574 15441 50182 08444 51835 56801	AM/RDFT	(SFNY)
HM01	8-12-2013	0824	Sun	9065	56801 22574 15441 50182 08444 51835	AM/RDFT	(DSch)
HM01	8-12-2013	1639	Sun	11435	17684 73662 05664 77332 28332 02635	AM/RDFT	(DSch)
HM01	8-12-2013	1704	Sun	11530	17684 etc	AM/RDFT	(DSch)
HM01	8-12-2013	1759	Sun	11635	17684 etc	AM/RDFT	(DSch)
HM01	8-12-2013	2151	Sun	11635	17684 etc	AM/RDFT	(DSch)
HM01	8-12-2013	2200	Sun	10715	17684 etc	AM/RDFT	(DSch)
HM01	8-12-2013	2301	Sun	11530	17684 etc	AM/RDFT	(DSch)
HM01	9-12-2013	0700	Mon	9330	28332 02635 07684 73662 05664 77332	AM/RDFT	(SFNY)
HM01	9-12-2013	0903	Mon	9240	17684 73662 05664 77332 28332 02635	AM/RDFT	(DSch)
HM01	9-12-2013	1629	Mon	11435	17684 73662 05664 77332 28332 02635	AM/RDFT	(DSch)
HM01	9-12-2013	1718	Mon	11530	17684 73662 05664 77332 28332 02635	AM/RDFT	(DSch)
HM01	9-12-2013	1805	Mon	11530	17684 73662 05664 77332 28332 02635 (Should be on 11635; switched to 11635 at 1812 UTC)	AM/RDFT	(DSch)
HM01	9-12-2013	1812	Mon	11635	17684 73662 05664 77332 28332 02635 (Came from 11530 kHz)	AM/RDFT	(DSch)
HM01	9-12-2013	2100	Mon	11635	17684 73662 05664 77332 28332 02635	AM/RDFT	(DSch)
HM01	9-12-2013	2206	Mon	10715	17684 73662 05664 77332 28332 02635	AM/RDFT	(DSch)
HM01	9-12-2013	2315	Mon	11530	17684 73662 05664 77332 28332 02635	AM/RDFT	(DSch)
HM01	10-12-2013	1632	Tue	11435	10755 48641 04062 15067 88344 46447	AM/RDFT	(DSch)
HM01	10-12-2013	1730	Tue	11530	10755 48641 04062 15067 88344 46447	AM/RDFT	(DSch)
HM01	10-12-2013	1758	Tue	11635	10755 48641 04062 15067 88344 46447	AM/RDFT	(DSch)

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HM01	10-12-2013	2114	Tue	16180	10755 48641 04062 15067 88344 46447	AM/RDFT	(DSch)
HM01	10-12-2013	2155	Tue	17480	one group with DIGTRX burst, then back to only carrier	AM/RDFT	(HS)
HM01	10-12-2013	2157	Tue	17480	Begin SS/YL callup 10755 48641 04062 15067 88344 46447, into mixed voice & RDFT at 2202 cut 2254	AM/RDFT	(HS)
HM01	10-12-2013	2219	Tue	17540	10755 48641 04062 15067 88344 46447	AM/RDFT	(DSch)
HM01	10-12-2013	2254	Tue	17480	10755 48641 04062 15067 88344 46447	AM/RDFT	(DSch)
HM01	10-12-2013	2259	Tue	17540	10755 48641 04062 15067 88344 46447	AM/RDFT	(DSch)
HM01	10-12-2013	2259	Tue	17540	In progress, same callup, low audio, nothing on 11530	AM/RDFT	(HS)
HM01	11-12-2013	1753	Wed	11530	10756 48642 04063 05171 88345 45631	AM/RDFT	(DSch)
HM01	11-12-2013	1759	Wed	11635	10756 48642 04063 05171 88345 45631	AM/RDFT	(DSch)
HM01	11-12-2013	2106	Wed	11635	10756 48642 04063 05171 88345 45631	AM/RDFT	(DSch)
HM01	11-12-2013	2231	Wed	10715	10756 48642 04063 05171 88345 45631	AM/RDFT	(DSch)
HM01	12-12-2013	1622	Thu	11435	56351 48643 04064 05172 88346 45632	AM/RDFT	(DSch)
HM01	12-12-2013	1659	Thu	11530	56351 48643 04064 05172 88346 45632	AM/RDFT	(DSch)
HM01	12-12-2013	1846	Thu	11635	56351 48643 04064 05172 88346 45632	AM/RDFT	(DSch)
HM01	12-12-2013	2238	Thu	17480	56351 48643 04064 05172 88346 45632	AM/RDFT	(DSch)
HM01	12-12-2013	2259	Thu	17540	56351 48643 04064 05172 88346 45632	AM/RDFT	(DSch)
HM01	12-12-2013	2300	Thu	17540	56351 48643 04064 05172 88346 45632	AM/RDFT	(Dan)
HM01	13-12-2013	1605	Fri	11435	56352 48644 04065 05173 88347 45633	AM/RDFT	(DSch)
HM01	13-12-2013	1659	Fri	11530	56352 48644 04065 05173 88347 45633	AM/RDFT	(DSch)
HM01	13-12-2013	1759	Fri	11635	56352 48644 04065 05173 88347 45633	AM/RDFT	(DSch)
HM01	13-12-2013	2102	Fri	11635	56352 48644 04065 05173 88347 45633	AM/RDFT	(DSch)
HM01	13-12-2013	2200	Fri	10715	56352 48644 04065 05173 88347 45633	AM/RDFT	(Dan)
HM01	13-12-2013	2202	Fri	10715	56352 48644 04065 05173 88347 45633	AM/RDFT	(DSch)
HM01	13-12-2013	2300	Fri	11530	56352 48644 04065 05173 88347 45633	AM/RDFT	(DSch)
HM01	14-12-2013	1604	Sat	11435	56353 48645 32751 05174 10651 45634	AM/RDFT	(DSch)
HM01	14-12-2013	1703	Sat	11530	56353 48645 32751 05174 10651 45634	AM/RDFT	(DSch)
HM01	14-12-2013	1801	Sat	11635	56353 48645 32751 05174 10651 45634. Wrong freq at 1759 UTC. Changed to 11635 kHz at 1801 UTC	AM/RDFT	(DSch)
HM01	14-12-2013	2059	Sat	16180	56353 48645 32751 05174 10651 45634	AM/RDFT	(DSch)
HM01	14-12-2013	2223	Sat	17480	56353 48645 32751 05174 10651 45634	AM/RDFT	(DSch)
HM01	14-12-2013	2259	Sat	17540	56353 48645 32751 05174 10651 45634	AM/RDFT	(DSch)
HM01	15-12-2013	0615	Sun	11435	43645 32751 05174 10651 45634 56353	AM/RDFT	(SFNY)
HM01	15-12-2013	0700	Sun	9330	43645 32751 05174 10651 45634 56353	AM/RDFT	(SFNY)
HM01	15-12-2013	1607	Sun	11435	56354 48646 32752 05175 10652 45635	AM/RDFT	(DSch)
HM01	15-12-2013	1700	Sun	11530	56354 48646 32752 05175 10652 45635	AM/RDFT	(DSch)
HM01	15-12-2013	1801	Sun	11635	56354 48646 32752 05175 10652 45635	AM/RDFT	(DSch)
HM01	15-12-2013	2300	Sun	11530	56354 48646 32752 05175 10652 45635	AM/RDFT	(Dan/DSch)
HM01	16-12-2013	0615	Mon	11435	56354 48646 32752 05175 10652 45635	AM/RDFT	(SFNY)
HM01	16-12-2013	0704	Mon	9330	Weak carrier but no transmission heard	AM	(DSch)
HM01	16-12-2013	1050	Mon	5855	5FGs in Spanish + RDFT data //9155	AM/RDFT	(steve)
HM01	16-12-2013	1050	Mon	9155	5FGs in Spanish + RDFT data //5855	AM/RDFT	(steve)
HM01	16-12-2013	1609	Mon	11435	56355 26301 32753 05176 10653 45636	AM/RDFT	(DSch)
HM01	16-12-2013	1706	Mon	11530	56355 26301 32753 05176 10653 45636	AM/RDFT	(DSch)
HM01	16-12-2013	2107	Mon	11635	56355 26301 32753 05176 10653 45636	AM/RDFT	(DSch)
HM01	16-12-2013	2200	Mon	10715	56355 26301 32753 05176 10653 45636	AM/RDFT	(Dan)
HM01	16-12-2013	2224	Mon	10715	56355 26301 32753 05176 10653 45636	AM/RDFT	(DSch)
HM01	17-12-2013	0846	Tue	11635	56335 48647 32752 05176 10653 45636	AM/RDFT	(DSch)
HM01	17-12-2013	1800	Tue	11635	56356 26302 32754 05177 10654 45637	AM/RDFT	(SFNY)
HM01	17-12-2013	1850	Tue	11635	56356 26302 32754 05177 10654 45637	AM/RDFT	(DSch)
HM01	17-12-2013	2100	Tue	16180	56356 26302 32754 05177 10654 45637	AM/RDFT	(DSch)
HM01	17-12-2013	2159	Tue	17480	56356 26302 32754 05177 10654 45637	AM/RDFT	(DSch)
HM01	17-12-2013	2259	Tue	17540	56356 26302 32754 05177 10654 45637	AM/RDFT	(DSch)
HM01	18-12-2013	1610	Wed	11435	56357 26303 32755 05178 10655 26051	AM/RDFT	(DSch)
HM01	18-12-2013	1725	Wed	11530	56357 26303 32755 05178 10655 26051	AM/RDFT	(DSch)
HM01	18-12-2013	1800	Wed	11635	56357 26303 32755 05178 10655 26051	AM/RDFT	(DSch)



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HM01	18-12-2013	2100	Wed	11635	56357 26303 32755 05178 10655 26051	AM/RDFT	(DSch)
HM01	18-12-2013	2201	Wed	10715	56357 26303 32755 05178 10655 26051	AM/RDFT	(DSch)
HM01	18-12-2013	2349	Wed	11530	56357 26303 32755 05178 10655 26051	AM/RDFT	(DSch)
HM01	19-12-2013	0525	Thu	12180	i.p. 56357 26303 32755 05178 10655 27051 (replacing the otherwise expected 45637)	AM/RDFT	(SFNY)
HM01	19-12-2013	1050	Thu	9155	i.p.	AM/RDFT	(steve)
HM01	19-12-2013	1604	Thu	11435	56358 26304 12001 02451 10656 26052	AM/RDFT	(DSch)
HM01	19-12-2013	1711	Thu	11530	56358 26304 12001 02451 10656 26052	AM/RDFT	(DSch)
HM01	19-12-2013	1855	Thu	11635	56358 26304 12001 02451 10656 26052	AM/RDFT	(DSch)
HM01	19-12-2013	2200	Thu	17480	56358 26304 12001 02451 10656 26052	AM/RDFT	(DSch)
HM01	20-12-2013	0610	Fri	11435	New sequence 56358 26304 12001 02451 10656 26052	AM/RDFT	(SFNY)
HM01	20-12-2013	0700	Fri	9330	56358 26304 12001 02451 10656 26052	AM/RDFT	(SFNY)
HM01	20-12-2013	1609	Fri	11435	64581 26053 12002 02452 10657 26053	AM/RDFT	(DSch)
HM01	20-12-2013	2059	Fri	11635	64581 26053 12002 02452 10657 26053	AM/RDFT	(DSch)
HM01	20-12-2013	2201	Fri	10715	64581 26053 12002 02452 10657 26053	AM/RDFT	(DSch)
HM01	20-12-2013	2300	Fri	11530	Starting again on 10715 at 2300 UTC. Shifts to 11530 kHz with 64581 etc at 2302 UTC	AM/RDFT	(DSch)
HM01	20-12-2013	2302	Fri	11530	04581 etc	AM/RDFT	(DSch)
HM01	21-12-2013	1634	Sat	11435	64582 26306 12003 02453 10658 26054	AM/RDFT	(DSch)
HM01	21-12-2013	1700	Sat	11435	Starts again on 11435 at 1700 instead of 11530 kHz. Stops at 1756	AM/RDFT	(DSch)
HM01	21-12-2013	1759	Sat	11635	64582 26306 12003 02453 10658 26054	AM/RDFT	(DSch)
HM01	21-12-2013	2113	Sat	16180	64582 26306 12003 02453 10658 26054	AM/RDFT	(DSch)
HM01	21-12-2013	2159	Sat	17540	64582 26306 12003 02453 10658 26054	AM/RDFT	(DSch)
HM01	21-12-2013	2300	Sat	17540	64582 26306 12003 02453 10658 26054	AM/RDFT	(DSch/Dan)
HM01	22-12-2013	0500	Sun	5855	64582 26306 12003 02453 10658 26054	AM/RDFT	(SFNY)
HM01	22-12-2013	1617	Sun	11435	64583 26307 12004 02454 23531 26055	AM/RDFT	(DSch)
HM01	22-12-2013	1659	Sun	11530	64583 26307 12004 02454 23531 26055	AM/RDFT	(DSch/GT)
HM01	22-12-2013	1758	Sun	11635	64583 26307 12004 02454 23531 26055	AM/RDFT	(DSch)
HM01	22-12-2013	2104	Sun	11635	64583 26307 12004 02454 23531 26055	AM/RDFT	(DSch)
HM01	22-12-2013	2250	Sun	10715	64583 26307 12004 02454 23531 26055	AM/RDFT	(DSch)
HM01	22-12-2013	2258	Sun	11530	64583 26307 12004 02454 23531 26055	AM/RDFT	(DSch/Dan)
HM01	23-12-2013	0508	Mon	5855	64583 26307 12004 02454 23531 26055	AM/RDFT	(SFNY/RWO)
HM01	23-12-2013	0600	Mon	10070	open carrier at 0558 UTC, no 'Atencion'. Spanish number sequence abruptly began; repeated 8 times //11435	AM/RDFT	(SFNY)
HM01	23-12-2013	0600	Mon	11435	open carrier at 0558 UTC, no 'Atencion'. Spanish number sequence abruptly began; repeated 8 times //10700	AM/RDFT	(SFNY)
HM01	23-12-2013	1000	Mon	9240		AM/RDFT	(rusl)
HM01	23-12-2013	2103	Mon	11635	64584 26308 12005 02455 23532 26056	AM/RDFT	(DSch)
HM01	23-12-2013	2159	Mon	10715	64584 26308 12005 02455 23532 26056	AM/RDFT	(DSch)
HM01	23-12-2013	2302	Mon	11530	64584 26308 12005 02455 23532 26056	AM/RDFT	(DSch)
HM01	24-12-2013	1606	Tue	11435	64585 63501 12006 16031 23533 26057	AM/RDFT	(DSch)
HM01	24-12-2013	1704	Tue	11530	64585 63501 12006 16031 23533 26057	AM/RDFT	(DSch)
HM01	24-12-2013	1758	Tue	11635	64585 63501 12006 16031 23533 26057	AM/RDFT	(SFNY)
HM01	24-12-2013	1800	Tue	11635	64585 63501 12006 02456 23533 26057	AM/RDFT	(SFNY)
HM01	24-12-2013	1801	Tue	11635	64585 63501 12006 16031 23533 26057	AM/RDFT	(DSch)
HM01	24-12-2013	2051	Tue	16180	64585 63501 12006 16031 23533 26057	AM/RDFT	(DSch)
HM01	24-12-2013	2211	Tue	17480	64585 63501 12006 16031 23533 26057	AM/RDFT	(DSch)
HM01	24-12-2013	2300	Tue	17480	64585 63501 12006 16031 23533 26057	AM/RDFT	(Dan)
HM01	25-12-2013	0558	Wed	11435	64585 63501 12006 16031 23533 26057	AM/RDFT	(SFNY)
HM01	25-12-2013	1636	Wed	11435	64586 63502 12007 16032 23534 26058	AM/RDFT	(DSch)
HM01	25-12-2013	1702	Wed	11530	64586 63502 12007 16032 23534 26058	AM/RDFT	(DSch)
HM01	25-12-2013	1807	Wed	11635	64586 63502 12007 16032 23534 26058	AM/RDFT	(DSch)
HM01	26-12-2013	0700	Thu	13435	64586 63502 12007 16032 23504 26058	AM/RDFT	(SFNY)
HM01	26-12-2013	1636	Thu	11435	64587 63503 12008 16033 23535 48831 at 261636	AM/RDFT	(DSch)
HM01	26-12-2013	1700	Thu	11530	64587 63503 12008 16033 23535 48831 at 261636	AM/RDFT	(DSch)
HM01	26-12-2013	1758	Thu	11635	64587 63503 12008 16033 23535 48831 at 261636	AM/RDFT	(DSch)

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HM01	26-12-2013	2102	Thu	16180	64587 63503 12008 16033 23535 48831 at 261636	AM/RDFT	(DSch)
HM01	26-12-2013	2210	Thu	17480	64587 63503 12008 16033 23535 48831 at 261636	AM/RDFT	(DSch)
HM01	26-12-2013	2258	Thu	17540	64587 63503 12008 16033 23535 48831 at 261636	AM/RDFT	(DSch)
HM01	27-12-2013	0458	Fri	5855	64587 63503 12008 16033 23535 48831	AM/RDFT	(SFNY)
HM01	27-12-2013	1029	Fri	9155	i.p.	AM/RDFT	(Steve)
HM01	27-12-2013	1721	Fri	11530	80581 63504 70471 16034 61781 48832	AM/RDFT	(DSch)
HM01	27-12-2013	1821	Fri	11635	80581 63504 70471 16034 61781 48832	AM/RDFT	(DSch)
HM01	27-12-2013	2102	Fri	11635	80581 63504 70471 16034 61781 48832	AM/RDFT	(DSch)
HM01	27-12-2013	2158	Fri	10715	80581 63504 70471 16034 61781 48832	AM/RDFT	(DSch)
HM01	27-12-2013	2300	Fri	10100	80581 63504 70471 16034 61781 48832	AM/RDFT	(SFNY)
HM01	27-12-2013	2300	Fri	11530	80581 63504 70471 16034 61781 48832	AM/RDFT	(Dan)
HM01	27-12-2013	2304	Fri	11530	80581 63504 70471 16034 61781 48832	AM/RDFT	(DSch)
HM01	28-12-2013	0723	Sat	13435	80581 63504 70471 16034 61781 48832	AM/RDFT	(SFNY)
HM01	28-12-2013	1605	Sat	11435	80582 63505 70472 16035 61782 48833	AM/RDFT	(DSch)
HM01	28-12-2013	1659	Sat	11530	80582 63505 70472 16035 61782 48833	AM/RDFT	(DSch)
HM01	28-12-2013	1800	Sat	11635	80582 63505 70472 16035 61782 48833	AM/RDFT	(DSch)
HM01	28-12-2013	2059	Sat	16180	80582 63505 70472 16035 61782 48833	AM/RDFT	(DSch)
HM01	28-12-2013	2200	Sat	17480	80582 63505 70472 16035 61782 48833	AM/RDFT	(DSch)
HM01	28-12-2013	2312	Sat	17540	Carrier but no sigs	AM/RDFT	(DSch)
HM01	29-12-2013	0637	Sun	11435		AM/RDFT	(SFNY)
HM01	29-12-2013	0700	Sun	9330	80582 63505 70472 16035 61782 48833	AM/RDFT	(SNFY)
HM01	29-12-2013	1605	Sun	11435	80583 63506 70473 16036 61783 48834 Still on 11435 at 1659. Shifts to 11530 at 1703 UTC	AM/RDFT	(DSch)
HM01	29-12-2013	1703	Sun	11530	80583 63506 70473 16036 61783 48834	AM/RDFT	(DSch)
HM01	29-12-2013	1800	Sun	11635	80583 63506 70473 16036 61783 48834	AM/RDFT	(DSch)
HM01	29-12-2013	2100	Sun	11635	80583 63506 70473 16036 61783 48834	AM/RDFT	(DSch/AB)
HM01	29-12-2013	2159	Sun	10715	80583 63506 70473 16036 61783 48834	AM/RDFT	(DSch)
HM01	29-12-2013	2258	Sun	11530	80583 63506 70473 16036 61783 48834	AM/RDFT	(DSch)
HM01	30-12-2013	0500	Mon	5855	80583 63506 70473 16036 61783 48834. Started new sked at 0558 but switched after 15 secs to another freq	AM/RDFT	(SFNY)
HM01	30-12-2013	0600	Mon	11435	Barely readable	AM/RDFT	(SFNY)
HM01	30-12-2013	0700	Mon	9330	80583 63506 70473 16036 61783 48834	AM/RDFT	(SFNY)
HM01	30-12-2013	0730	Mon	9330	i.p.	AM/RDFT	(RR3)
HM01	30-12-2013	1652	Mon	11435	Tuned in just as she stopped	AM/RDFT	(DSch)
HM01	30-12-2013	1658	Mon	11530	80584 63507 70474 44781 61784 48835. At 1659 two messages were sent on top of each other	AM/RDFT	(DSch)
HM01	30-12-2013	1718	Mon	11530	Two messages on top of each other	AM/RDFT	(KA1IIC)
HM01	30-12-2013	1758	Mon	11635	80584 63507 70474 44781 61784 48835. Groups were doubled up for portion of transmission	AM/RDFT	(DSch)
HM01	30-12-2013	1800	Mon	11635	Two messages on top of each other	AM/RDFT	(KA1IIC)
HM01	30-12-2013	2100	Mon	11635	56792 03633 37674 18655 62113 66163. This is odd because the group change usually took place on the 1600 sked. Also note the final digit in each group. It would appear the groups had been previously transmitted. One group twice, one group 5 times, one group 4 times and three groups 3 times??	AM/RDFT	(DSch)
HM01	30-12-2013	2100	Mon	11635	Msg	AM/RDFT	(KA1IIC)
HM01	30-12-2013	2158	Mon	10715	56792 03633 37674 18655 62113 66163	AM/RDFT	(DSch)
HM01	30-12-2013	2300	Mon	11530	56792 03633 37674 18655 62113 66163	AM/RDFT	(DSch/Dan)
HM01	31-12-2013	0700	Tue	13435	56792 03633 37674 18655 62113 66163	AM/RDFT	(SFNY)
HM01	31-12-2013	1607	Tue	11435	56792 03633 37674 18655 62113 66163	AM/RDFT	(DSch)
HM01	31-12-2013	1708	Tue	11530	56792 03633 37674 18655 62113 66163	AM/RDFT	(DSch)
HM01	31-12-2013	1758	Tue	11530	56792 03633 37674 18655 62113 66163 Should be on 11635	AM/RDFT	(DSch)
HM01	31-12-2013	1808	Tue	11635	56792 03633 37674 18655 62113 66163 Shifted here from 11530 at 1808 UTC	AM/RDFT	(DSch)
HM01	31-12-2013	2119	Tue	16180	56792 03633 37674 18655 62113 66163	AM/RDFT	(DSch)
HM01	31-12-2013	2207	Tue	17480	56792 03633 37674 18655 62113 66163	AM/RDFT	(DSch)

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HM01	31-12-2013	2303	Tue	17540	56792 03633 37674 18655 62113 66163	AM/RDFT	(DSch)
M01	5-12-2013	1800	Thu	5320	197 984 30 == 29364 97469 61333 14542 64194 ... 14475 CW 14496 01949 66164 35651 == 984 30 000		(MPJ)
M01	7-12-2013	1500	Sat	5810	575 30 == 20895 43562 89928 50619 15449 ... 70338 CW 40092 55078 61663 73031 == 575 30. A few faulty repeat groups. //5811		(MPJ)
M01	8-12-2013	1940	Sun	2470	repeated 5F message ending = 389 389 33 33 000	CW	(PPA)
M01	10-12-2013	1759	Tue	5320	197 479 30 == 54324 45941 04399 10604 13263 ... 98348 CW 80659 42867 41516 42927 == 479 30 000		(MPJ)
M01	15-12-2013	0941	Sun	14628	i.p. 94819 90328 41.81 48918 92826 76699 etc. See N&O 195	CW	(JPL-RUS)
M01	17-12-2013	1800	Tue	5320	197 228 30 == 65859 87674 63224 10148 52233 ... 88492 CW 34192 83752 80881 10554 == 228 30 000. //5321//5322 kHz		(MPJ)
M01	19-12-2013	1800	Thu	5320	197 318 30 == 67655 20108 58209 51734 90589 ... 89428 CW 26337 24470 00135 80250 == 318 30 000		(MPJ)
M01	27-12-2013	2110	Fri	3180	610 781 32 == 44900 21663 13905 ... 26177 10258 37137 CW 000		(ML)
M01	28-12-2013	1500	Sat	5810	197 192 30 == 19271 48528 77892 62369 90950 ... 28124 CW 33703 80072 59436 53852 == 192 30 000		(MPJ)
M01	31-12-2013	1800	Tue	5320	197 013 30 == 48200 21644 25750 92998 35312 ... 01746 CW 92328 35453 40937 34744 == 010 13 33 000		(MPJ)
M01b	2-12-2013	2015	Mon	3205	375 389 33 == 02813 25471 32740 61143 87902 ... 11252 MCW 04179 18158 98182 99427 == 389 33 000		(MPJ)
M01b	6-12-2013	2002	Fri	2655	866 389 33 == 02813 25471 32740 61143 87902 ... 11352 MCW 04179 18158 98182 99427 == 389 33 000 //3196		(MPJ)
M01b	6-12-2013	2002	Fri	3196	866 389 33 == 02813 25471 32740 61143 87902 ... 11352 MCW 04179 18158 98182 99427 == 389 33 000 //2655		(MPJ)
M01b	6-12-2013	2110	Fri	2405	610 389 33 Resend of 2002 UTC //3180	MCW	(MPJ)
M01b	6-12-2013	2110	Fri	3180	610 389 33 Resend of 2002 UTC //2405	MCW	(MPJ)
M01b	9-12-2013	1910	Mon	3520	853 781 32 == 44900 21663 13905 50036 09949 ... 35333 MCW 97290 26177 ....7 37137 == 781 32 000		(MPJ)
M01b	19-12-2013	2040	Thu	3160	382 781 32 = __ _4902 21_63 (becomes uncopiable)	CW	(MPJ)
M01b	20-12-2013	2002	Fri	2655	866 781 32 == 44900 21663 13905 50036 09949 ... 35433 MCW 97290 26177 10258 37137 == 781 32 000 //3195 kHz		(MPJ)
M01b	20-12-2013	2002	Fri	3195	866 781 32 == 44900 21663 13905 50036 09949 ... 35433 MCW 97290 26177 10258 37137 == 781 32 000 //2655 kHz		(MPJ)
M01b	20-12-2013	2110	Fri	2405	610 781 32 == 44900 21663 etc. same msg as 2002 sked repeated for 610. Good signal //3180 kHz	MCW	(MPJ)
M01b	20-12-2013	2110	Fri	3180	610 781 32 == 44900 21663 etc. same msg as 2002 sked repeated for 610. Good signal //2405 kHz	MCW	(MPJ)
M01b	23-12-2013	1910	Mon	3519	853 ...	CW	(RWO)
M01b	23-12-2013	2015	Mon	3205	375 781 32 == 44900 21663 13905 50036 09949 ... 35433 CW 97490 26177 10258 37137 == 781 32 000		(MPJ)
M01b	30-12-2013	1920	Mon	3520	Msg	CW	(RWO)
M01b	30-12-2013	2015	Mon	3205	375 781 32 == 44900 21663 13905 50036 09949 ... 35433 CW 97290 26177 10258 37137 == 781 32 000		(MPJ)
M03	1-12-2013	1320	Sun	4828	437/00	CW	(MPJ)
M03	3-12-2013	1115	Tue	4828	272/00 ==	CW	(MPJ)
M03	3-12-2013	1535	Tue	5358	798/00 ==	CW	(MPJ)
M03	3-12-2013	1535	Tue	5358	798/00 ==	CW	(Topol)
M03	5-12-2013	1320	Thu	4828	437/00 ==	CW	(MPJ)
M03	7-12-2013	1535	Sat	5358	798/00	CW	(MPJ)
M03	8-12-2013	1320	Sun	4828	437/00	CW	(PPA)
M03	10-12-2013	1115	Tue	4828	272/00	CW	(MPJ)
M03	10-12-2013	1537	Tue	5358	795/34 == 23177 75534 72488 ... 44304 06765 50033 == 000	CW	(JPL-FNL)
M03	11-12-2013	1115	Wed	4828	650/00	CW	(FN)
M03	17-12-2013	1535	Tue	5358	798/00	CW	(MPJ)

enigma	date	UTC	day	frequency	remarks	mode	contributor
M03	18-12-2013	1115	Wed	4828 650/00		CW	(MPJ)
M03	28-12-2013	1535	Sat	5358 798/00		CW	(MPJ)
M03	31-12-2013	1555	Tue	5358 798/00		CW	(MPJ)
M08a	2-12-2013	1407	Mon	8097 Cuban cut nbrs		CW	(DSch)
M08a	3-12-2013	1419	Tue	8096 Cuban cut nbrs		CW	(DSch)
M08a	3-12-2013	2030	Tue	7554 Cuban cut nbrs		CW	(DSch)
M08a	5-12-2013	1418	Thu	8096 Cuban cut nbrs		CW	(DSch)
M08a	5-12-2013	2008	Thu	7554 Cuban cut nbrs		CW	(DSch)
M08a	5-12-2013	2116	Thu	16180 M08a mixes with HM01. CW stops at 2117 UTC		CW	(DSch)
M08a	6-12-2013	2104	Fri	11635 Cuban cut nbrs. Wrong freq and time for M08a. Voice starts at 2105 UTC: 83381 22574 15441 50182 08444 51835		CW	(DSch)
M08a	13-12-2013	1405	Fri	8096 Cuban cut nbrs		CW	(DSch)
M08a	16-12-2013	1412	Mon	8095 Cuban cut nbrs		CW	(DSch)
M08a	17-12-2013	1407	Tue	8096 Cuban cut nbrs		CW	(DSch)
M08a	17-12-2013	1459	Tue	7555 Cuban cut nbrs		CW	(DSch)
M08a	18-12-2013	1356	Wed	8095 Cuban cut nbrs. WNNWN RWGWN IGDIA		CW	(DSch)
M08a	19-12-2013	2002	Thu	7554 Cuban cut nbrs. Checked again, he is still sending tfc at 2059 UTC		CW	(DSch)
M08a	23-12-2013	1405	Mon	8097 Cuban cut nbrs		CW	(DSch)
M08a	23-12-2013	2025	Mon	7554 Cuban cut nbrs		CW	(DSch)
M08a	30-12-2013	2024	Mon	7554 Cuban cut nbrs		CW	(DSch)
M12	1-12-2013	1010	Sun	13569 582 1 9511 93 03697		CW	(FN)
M12	1-12-2013	1010	Sun	13569 582 1		CW	(HFD)
M12	1-12-2013	1030	Sun	14869 582 1 9511 93 03697		CW	(FN)
M12	1-12-2013	1030	Sun	14869 582 1		CW	(HFD)
M12	1-12-2013	1050	Sun	16269 582 1 9511 93 03697		CW	(FN)
M12	1-12-2013	1050	Sun	16269 582 1		CW	(HFD)
M12	2-12-2013	0450	Mon	5157 417 0		CW	(HFD)
M12	2-12-2013	0530	Mon	4457 417 417 417 000		CW	(FN)
M12	2-12-2013	0530	Mon	4457 417 0		CW	(HFD)
M12	2-12-2013	0550	Mon	5157 417 417 417 000		CW	(FN)
M12	2-12-2013	1300	Mon	9223 214 1 939 209 33794		CW	(FN)
M12	2-12-2013	1300	Mon	9223 214 1		CW	(HFD)
M12	2-12-2013	1320	Mon	8193 214 1 939 209 33794		CW	(FN)
M12	2-12-2013	1320	Mon	8193 214 1		CW	(HFD)
M12	2-12-2013	1320	Mon	8193 214 1 939 209 33794 54152 62342 01657 19123 ... 08279 94806 80406 58185 44428 000 000		CW	(MPJ)
M12	2-12-2013	1340	Mon	7463 214 1 939 209 33794		CW	(FN)
M12	2-12-2013	1340	Mon	7463 214 1		CW	(HFD)
M12	2-12-2013	1600	Mon	11435 938 1 5228 113 10287		CW	(FN)
M12	2-12-2013	1620	Mon	10598 938 1 5228 113 10287		CW	(FN)
M12	2-12-2013	1640	Mon	9327 938 1 5228 113 10287		CW	(FN)
M12	2-12-2013	1720	Mon	7931 257 1 3413 77 31548 27570 01841 33079 83500 ... 39.25 42106 17350 55572 42927 000 000		CW	(MPJ)
M12	2-12-2013	1900	Mon	9176 257 1 362 97 35084		CW	(FN)
M12	2-12-2013	1900	Mon	9176 257 1		CW	(HFD)
M12	2-12-2013	1920	Mon	7931 257 1 362 97 35084		CW	(FN/HFD/RW O)
M12	2-12-2013	1940	Mon	6904 257 1 362 97 35084		CW	(FN)/HFD
M12	3-12-2013	1830	Tue	10343 124 1		CW	(HFD)
M12	3-12-2013	1850	Tue	9264 124 1 ...		CW	(FN)
M12	3-12-2013	1850	Tue	9264 124 1		CW	(HFD)
M12	3-12-2013	1910	Tue	8116 124 1 8735 59 91970		CW	(FN)
M12	3-12-2013	1910	Tue	8116 124 1		CW	(HFD)
M12	4-12-2013	1500	Wed	7509 214 1 939 209 33794		CW	(FN)
M12	4-12-2013	1500	Wed	7509 214 1		CW	(HFD)

enigma	date	UTC	day	frequency	remarks	mode	contributor
M12	4-12-2013	1520	Wed	6909 214 1 939 209 33794		CW	(FN/HFD)
M12	4-12-2013	1540	Wed	5709 214 1 939 209 33794		CW	(FN)
M12	4-12-2013	1540	Wed	5709 214 1		CW	(HFD)
M12	4-12-2013	1700	Wed	8047 463 1 2170 62 12069		CW	(FN)
M12	4-12-2013	1700	Wed	8047 463 1		CW	(HFD)
M12	4-12-2013	1720	Wed	6802 463 1 2170 62 12069		CW	(FN)
M12	4-12-2013	1720	Wed	6802 463 1		CW	(HFD)
M12	4-12-2013	1720	Wed	6802 463 1 2170 62 12069 01719 64186 54183 74229 ... 61100 94272 65858 01478 33342 000 000.		CW	(MPJ)
M12	4-12-2013	1740	Wed	5788 463 1 2170 62 12069		CW	(FN)
M12	4-12-2013	1740	Wed	5788 463 1		CW	(HFD)
M12	4-12-2013	1830	Wed	11435 938 1		CW	(HFD)
M12	4-12-2013	1850	Wed	10598 938 1 ...		CW	(FN/HFD/MP J)
M12	4-12-2013	1910	Wed	9327 938 1 5846 52 78059 6016. 76885 99053 .7786 ... 93430 7...9 23323 46068 40646 000 000		CW	(MPJ/FN/HF D/RWO)
M12	4-12-2013	2200	Wed	5312 350 1 6809 91 02558		CW	(FN)
M12	4-12-2013	2220	Wed	4512 350 1 6809 91 02558		CW	(FN)
M12	4-12-2013	2240	Wed	4012 350 1 6809 91 02558		CW	(FN)
M12	5-12-2013	0730	Wed	5284 277 277 277 000		CW	(FN)
M12	5-12-2013	0750	Wed	5784 277 277 277 00		CW	(FN)
M12	5-12-2013	1010	Thu	13569 582 1 253 95 10933		CW	(FN)
M12	5-12-2013	1030	Thu	14869 582 1 253 95 10933		CW	(FN)
M12	5-12-2013	1050	Thu	16269 582 1 253 95 10933		CW	(FN)
M12	5-12-2013	1600	Thu	13386 725 1 3095 114 24153		CW	(FN)
M12	5-12-2013	1600	Thu	13386 725 1		USB	(HFD)
M12	5-12-2013	1620	Thu	12189 725 1 3095 114 24153		CW	(FN)
M12	5-12-2013	1620	Thu	12189 725 0		CW	(HFD)
M12	5-12-2013	1640	Thu	11491 725 1 3095 114 24153		CW	(FN/HFD)
M12	5-12-2013	1700	Thu	9176 257 1 9018 63 33620 55629 26176 44672 80215 ... 58516 92280 11937 52905 68053 000 000		CW	(MPJ/FN/HF D)
M12	5-12-2013	1700	Thu	10343 257 1 6842 73 17912		CW	(FN)
M12	5-12-2013	1720	Thu	7931 257 1 9018 63 33620		CW	(FN/HFD)
M12	5-12-2013	1720	Thu	9264 257 1 6842 73 17912		CW	(FN)
M12	5-12-2013	1740	Thu	6904 257 1 9018 63 33620		CW	(FN)
M12	5-12-2013	1740	Thu	6904 257 1 9018 63 33620.....		CW	(Topol/HFD)
M12	5-12-2013	1740	Thu	8116 257 1 6842 73 17912		CW	(FN)
M12	5-12-2013	1740	Thu	8116 124 1 6842 73 17912 32254 79369 25378 39592 ... 62507 16669 61779 71704 15621 000 000		CW	(MPJ)
M12	5-12-2013	1740	Thu	8116 124 1 6842 73 17912 32254 79369 ... 61889 71704 15621 000 000		CW	(Topol)
M12	5-12-2013	1800	Thu	10343 124 1 362 97 35084		CW	(FN)
M12	5-12-2013	1820	Thu	9264 124 1 362 97 35084		CW	(FN)
M12	5-12-2013	1840	Thu	8116 124 1 362 97 35084		CW	(FN)
M12	5-12-2013	1900	Thu	9176 257 1 ...		CW	(FN)
M12	5-12-2013	1920	Thu	7931 257 1 9020 ...		CW	(FN)
M12	5-12-2013	1940	Thu	6904 257 1 9020 53 08111		CW	(FN)
M12	7-12-2013	0600	Sat	5784 751 1 6809 91 02558		CW	(FN)
M12	7-12-2013	0620	Sat	7584 751 1 6809 91 02558		CW	(FN)
M12	8-12-2013	1010	Sun	13569 582 1 253 95 10933		CW	(FN)
M12	8-12-2013	1030	Sun	14869 582 1 253 95 10933		CW	(FN)
M12	8-12-2013	1050	Sun	16269 582 1 253 95 10933		CW	(FN)
M12	9-12-2013	0530	Mon	4457 417 417 417 000		CW	(FN)
M12	9-12-2013	0550	Mon	5157 417 417 417 000		CW	(FN)
M12	9-12-2013	1300	Mon	9223 214 1 7756 89 48861		CW	(FN)
M12	9-12-2013	1320	Mon	8193 214 1 7756 89 48861		CW	(FN)
M12	9-12-2013	1340	Mon	7463 214 1 7756 89 48861		CW	(FN)

enigma	date	UTC	day	frequency	remarks	mode	contributor
M12	9-12-2013	1600	Mon	11435	938 1 3231 119 01602	CW	(FN)
M12	9-12-2013	1620	Mon	10598	938 1 3231 119 01602	CW	(FN)
M12	9-12-2013	1640	Mon	9327	938 1 3231 119 01602	CW	(FN)
M12	9-12-2013	1700	Mon	9176	257 1 9593 78 71142 67317 71331 78463 09011 ... 31888 93967 17301 82518 52189 000 000	CW	(MPJ/FN)
M12	9-12-2013	1720	Mon	7931	257 1 9593 78 71142	CW	(FN)
M12	9-12-2013	1740	Mon	6904	257 1 9593 78 71142	CW	(FN)
M12	9-12-2013	1800	Mon	9176	257 1 4145 53 47290	CW	(FN)
M12	9-12-2013	1820	Mon	7931	257 1 4145 53 47290	CW	(FN)
M12	9-12-2013	1840	Mon	6904	257 1 4145 53 47290	CW	(FN)
M12	9-12-2013	1900	Mon	9176	257 1...	CW	(FN)
M12	9-12-2013	1920	Mon	7931	257 1...	CW	(FN)
M12	9-12-2013	1940	Mon	6904	257 1...	CW	(FN)
M12	10-12-2013	1830	Tue	10343	124 1 7409 68 30393	CW	(FN)
M12	10-12-2013	1850	Tue	9264	124 1 7409 68 30393	CW	(FN)
M12	10-12-2013	1910	Tue	8116	124 1 7409 68 30393	CW	(FN)
M12	10-12-2013	1910	Tue	8116		CW	(RWO)
M12	11-12-2013	1500	Wed	7509	214 1 7756 89 48861	CW	(FN)
M12	11-12-2013	1520	Wed	6909	214 1 7756 89 48861	CW	(FN)
M12	11-12-2013	1540	Wed	5709	214 1 7756 89 48861	CW	(FN)
M12	11-12-2013	1700	Wed	8047	463 1 2279 92 71985	CW	(FN)
M12	11-12-2013	1720	Wed	6802	463 1 2279 92 71985	CW	(FN)
M12	11-12-2013	1740	Wed	5788	463 1 2279 92 71985	CW	(FN)
M12	11-12-2013	1740	Wed	5788		CW	(RWO)
M12	11-12-2013	1830	Wed	11435	938 1 ...	CW	(FN)
M12	11-12-2013	1850	Wed	10598	938 1 ...	CW	(FN)
M12	11-12-2013	1910	Wed	9327	938 1 ...	CW	(FN/RWO)
M12	11-12-2013	2200	Wed	5312	350 350 350 000	CW	(FN)
M12	11-12-2013	2200	Wed	5312	350 0	CW	(HFD)
M12	11-12-2013	2220	Wed	4512	350 350 350 000	CW	(FN)
M12	11-12-2013	2220	Wed	4512	350 0	CW	(HFD)
M12	12-12-2013	0730	Thu	5284	277 277 277 000	CW	(FN)
M12	12-12-2013	0730	Thu	5284	277 0	CW	(HFD)
M12	12-12-2013	0750	Thu	5784	277 277 277000	CW	(FN)
M12	12-12-2013	0750	Thu	5784	277 0	CW	(HFD)
M12	12-12-2013	1010	Thu	13569	582 1 7748 81 96697	CW	(FN)
M12	12-12-2013	1035	Thu	14869	582 1 7748 81 96697	CW	(FN)
M12	12-12-2013	1050	Thu	16269	582 1 7748 81 96697	CW	(FN)
M12	12-12-2013	1200	Thu	11469	just ending msg KKK	CW	(LG2)
M12	12-12-2013	1600	Thu	13386	725 1 9217 105 37600	CW	(FN)
M12	12-12-2013	1620	Thu	12189	725 1 9217 105 37600	CW	(FN)
M12	12-12-2013	1640	Thu	11491	725 1 9217 105 37600	CW	(FN)
M12	12-12-2013	1700	Thu	9176	257 1 2889 95 28364	CW	(FN)
M12	12-12-2013	1700	Thu	10343	124 1 9801 80 79660	CW	(FN)
M12	12-12-2013	1720	Thu	7931	257 1 2889 95 28364	CW	(FN)
M12	12-12-2013	1720	Thu	9264	124 1 9801 80 79660	CW	(FN)
M12	12-12-2013	1740	Thu	6904	257 1 2889 95 28364	CW	(FN)
M12	12-12-2013	1740	Thu	8116	124 1 9801 80 79660	CW	(FN)
M12	12-12-2013	1800	Thu	10343	124 1 800 ...	CW	(FN)
M12	12-12-2013	1820	Thu	9264	124 1 800 119 03283	CW	(FN)
M12	12-12-2013	1840	Thu	8116	124 1 800 119 03283	CW	(FN)
M12	12-12-2013	1900	Thu	9176	257 1 ...	CW	(FN)
M12	12-12-2013	1920	Thu	7931	257 1 4747 63 23653	CW	(FN)
M12	12-12-2013	1940	Thu	6904	257 1 4747 63 23653	CW	(FN)
M12	15-12-2013	1010	Sun	13569	582 1 7748 81 96697	CW	(FN)
M12	15-12-2013	1030	Sun	14969	582 1 7748 81 96697	CW	(FN)

enigma	date	UTC	day	frequency	remarks	mode	contributor
M12	15-12-2013	1050	Sun	16269	582 1 7748 81 96697	CW	(FN)
M12	16-12-2013	0530	Mon	4457	417 417 417 000	CW	(FN)
M12	16-12-2013	0550	Mon	5157	417 417 417 000	CW	(FN)
M12	16-12-2013	1300	Mon	9223	214 1 1244 67 25392	CW	(FN)
M12	16-12-2013	1320	Mon	8193	214 1 1244 67 25392	CW	(FN)
M12	16-12-2013	1340	Mon	7463	214 1 1244 67 25392	CW	(FN)
M12	16-12-2013	1600	Mon	11435	938 1 5032 113 58691	CW	(FN)
M12	16-12-2013	1620	Mon	10598	938 1 5032 113 58691	CW	(FN)
M12	16-12-2013	1640	Mon	9327	938 1 5032 113 58691	CW	(FN)
M12	16-12-2013	1700	Mon	9176	257 1 8208 78 48893	CW	(FN)
M12	16-12-2013	1720	Mon	7931	257 1 8208 78 48893	CW	(FN)
M12	16-12-2013	1740	Mon	6904	257 1 8208 78 48893	CW	(FN)
M12	16-12-2013	1800	Mon	9176	257 1 2931 68 31449	CW	(FN)
M12	16-12-2013	1820	Mon	7931	257 1 2931 68 31449	CW	(FN)
M12	16-12-2013	1840	Mon	6904	257 1 2931 68 31449	CW	(FN)
M12	16-12-2013	1900	Mon	9176	257 1 993 118 21508	CW	(FN)
M12	16-12-2013	1920	Mon	7931	257 1 993 118 21508	CW	(FN)
M12	16-12-2013	1940	Mon	6904	257 1 993 118 21508	CW	(FN)
M12	17-12-2013	1830	Tue	10343	124 1 ...	CW	(FN)
M12	17-12-2013	1850	Tue	9264	124 1 ...	CW	(FN)
M12	17-12-2013	1910	Tue	8116	124 1 4694 59 23323	CW	(FN)
M12	17-12-2013	1910	Tue	8116	124 1 4694 59 23323 60112 06809 52494 23304 ... 09488 64120 80027 17779 48255 000 000	CW	(MPJ)
M12	18-12-2013	1500	Wed	7509	214 1 1244 67 25392	CW	(FN)
M12	18-12-2013	1500	Wed	7509	214 1 1244 67 25392 54617 82355 34796 31834 ... 25601 97035 70111 58665 10442 000 000	CW	(MPJ)
M12	18-12-2013	1520	Wed	6909	214 1 1244 67 25392	CW	(FN)
M12	18-12-2013	1540	Wed	5709	214 1 1244 67 25392	CW	(FN)
M12	18-12-2013	1700	Wed	8047	463 1 3966 62 18536	CW	(FN)
M12	18-12-2013	1720	Wed	6802	463 1 3966 62 18536	CW	(FN)
M12	18-12-2013	1740	Wed	5788	463 1 3966 62 18536	CW	(FN)
M12	18-12-2013	1830	Wed	11435	938 1 ...	CW	(FN)
M12	18-12-2013	1850	Wed	10598	938 1 ...	CW	(FN)
M12	18-12-2013	1910	Wed	9327	938 1 5822 58 0_145 55087 81204 17013 32934 ... 09320 61904 41559 81302 67670 000 000	CW	(MPJ/FN)
M12	18-12-2013	2200	Wed	5312	350 1 931 75 06753	CW	(FN)
M12	18-12-2013	2220	Wed	4512	350 1 931 75 06753	CW	(FN)
M12	18-12-2013	2240	Wed	4012	350 1 931 75 06753	CW	(FN)
M12	19-12-2013	0730	Thu	5284	277 277 277 000	CW	(FN)
M12	19-12-2013	0750	Thu	5784	277 277 277 000	CW	(FN)
M12	19-12-2013	1010	Thu	13569	582 1 1311 91 56460	CW	(FN)
M12	19-12-2013	1030	Thu	14869	582 1 1311 91 56460	CW	(FN)
M12	19-12-2013	1050	Thu	16269	582 1 1311 91 56460	CW	(FN)
M12	19-12-2013	1600	Thu	13386	725 1 9810 100 55290	CW	(FN)
M12	19-12-2013	1620	Thu	9264	124 1 5083 71. 91127 53771 53935 41610 95179 ... 94118 90195 70072 66620 69374 000 000	CW	(MPJ)
M12	19-12-2013	1620	Thu	12189	725 1 9810 100 55290	CW	(FN)
M12	19-12-2013	1640	Thu	11491	725 1 9810 100 55290	CW	(FN)
M12	19-12-2013	1700	Thu	9176	257 1 8521 68 35710 20063 11516 51138 82834 ... 82462 40679 93306 73880 41106 000 000	CW	(MPJ/FN)
M12	19-12-2013	1700	Thu	10343	124 1 5083 71 91127	CW	(FN)
M12	19-12-2013	1720	Thu	7931	257 1 8521 68 35710	CW	(FN)
M12	19-12-2013	1720	Thu	9264	124 1 5083 71 91127	CW	(FN)
M12	19-12-2013	1740	Thu	8116	124 1 5083 71 91127	CW	(FN)
M12	19-12-2013	1800	Thu	10343	124 1 ...	CW	(FN)
M12	19-12-2013	1820	Thu	9264	124 1 ...	CW	(FN)
M12	19-12-2013	1840	Thu	8116	124 1 ...	CW	(FN)



enigma	date	UTC	day	frequency	remarks	mode	contributor
M12	19-12-2013	1920	Thu	7931 257 1 ...		CW	(FN)
M12	19-12-2013	1940	Thu	6904 257 1 7581 54 31847		CW	(FN)
M12	21-12-2013	0600	Sat	5784 751 1 931 75 06753		CW	(FN)
M12	21-12-2013	0620	Sat	7584 751 1 931 75 06753		CW	(FN)
M12	21-12-2013	0640	Sat	9184 751 1 931 75 06753		CW	(FN)
M12	22-12-2013	1010	Sun	13569 582 1 1311 91 56460		CW	(FN)
M12	22-12-2013	1030	Sun	14869 582 1 1311 91 56460		CW	(FN)
M12	22-12-2013	1050	Sun	16269 582 1 1311 91 56460		CW	(FN)
M12	23-12-2013	0530	Mon	4457 417 417 417 000		CW	(FN)
M12	23-12-2013	0530	Mon	4457 417 417 417 000		CW	(RWO)
M12	23-12-2013	0550	Mon	5157 417 417 417 000		CW	(FN)
M12	23-12-2013	1300	Mon	9223 214 214 214 000		CW	(FN)
M12	23-12-2013	1300	Mon	9223 214 214 214 000		CW	(MPJ)
M12	23-12-2013	1320	Mon	8193 214 214 214 000		CW	(FN)
M12	23-12-2013	1600	Mon	11435 938 1 5615 106 54976		CW	(FN)
M12	23-12-2013	1620	Mon	10598 938 1 5615 106 54976		CW	(FN)
M12	23-12-2013	1640	Mon	9327 938 1 5615 106 54976		CW	(FN)
M12	23-12-2013	1720	Mon	7931 257 1 2814 72 80139		CW	(FN)
M12	23-12-2013	1720	Mon	7931 257 1 2814 72 80139 24742 25030 15088 58424 16620 91923 09456 32596 99831 000 000		CW	(MPJ)
M12	23-12-2013	1740	Mon	6904 257 1 2814 72 80139		CW	(FN)
M12	23-12-2013	1800	Mon	9176 257 1 ...		CW	(FN)/RWO
M12	23-12-2013	1820	Mon	7931 257 1 6755 51 79227		CW	(FN)
M12	23-12-2013	1840	Mon	6904 257 1 6755 51 79227		CW	(FN)
M12	23-12-2013	1900	Mon	9176 257 1 ...		CW	(FN)
M12	23-12-2013	1920	Mon	7931 257 1 7361 102 30693		CW	(FN)
M12	23-12-2013	1940	Mon	6904 257 1 7361 102 30693		CW	(FN)
M12	25-12-2013	1500	Wed	5709 214 214 214 000		CW	(FN)
M12	25-12-2013	1520	Wed	6909 214 214 214 000		CW	(FN)
M12	25-12-2013	1700	Wed	8047 463 1 1879 77 04500		CW	(FN)
M12	25-12-2013	1720	Wed	6802 463 1 1879 77 04500		CW	(FN/RWO)
M12	25-12-2013	1720	Wed	6802 463 1 ...		CW	(RWO)
M12	25-12-2013	1740	Wed	5788 463 1 1879 77 04500		CW	(FN)
M12	25-12-2013	1850	Wed	10598 938 1 ...		CW	(FN)
M12	25-12-2013	1910	Wed	9327 938 1 ...		CW	(FN)
M12	26-12-2013	0730	Thu	5284 277 277 277 000		CW	(AB/RWO)
M12	30-12-2013	0530	Mon	4457 417 417 417 000		CW	(FN)
M12	30-12-2013	0550	Mon	5157 417 416 416 000		CW	(FN)
M12	30-12-2013	1300	Mon	9223 214 214 214 000		CW	(FN)
M12	30-12-2013	1320	Mon	8193 214 214 214 000		CW	(FN)
M12	30-12-2013	1600	Mon	11435 938 1 7113 113 48613		CW	(FN)
M12	30-12-2013	1620	Mon	10598 938 1 7113 113 48613		CW	(FN)
M12	30-12-2013	1640	Mon	9327 938 1 7113 113 48613		CW	(FN)
M12	30-12-2013	1700	Mon	9176 257 1 5579 80 93972		CW	(FN)
M12	30-12-2013	1720	Mon	7931 257 1 5579 80 93972		CW	(FN)
M12	30-12-2013	1720	Mon	7931 257 1 5579 80 93972 20732 19601 55681 90462 ... 69365 27934 23722 63417 33801 000 000		CW	(MPJ)
M12	30-12-2013	1740	Mon	6904 257 1 ...		CW	(FN)
M12	30-12-2013	1800	Mon	9176 257 1 2688 68 61425		CW	(FN/ RWO)
M12	30-12-2013	1820	Mon	7931 257 1 2688 68 61425		CW	(FN)
M12	30-12-2013	1840	Mon	6904 257 1 ...		CW	(FN)
M12	30-12-2013	1900	Mon	9176 2547 1 2074 111 12445		CW	(FN)
M12	30-12-2013	1920	Mon	7931 2547 1 2074 111 12445		CW	(FN)
M12	30-12-2013	1940	Mon	6904 2547 1 2074 111 12445		CW	(FN)
M14	7-12-2013	0800	Sat	5430 171		CW	(RWO)
M14	10-12-2013	0700	Tue	5785 178 0		CW	(HFD)

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M14	10-12-2013	0800	Tue	5895 178 0		CW	(HFD)
M14	10-12-2013	1820	Tue	4636 186		CW	(HFD)
M14	11-12-2013	1920	Wed	4761 748		CW	(RWO)
M14	21-12-2013	0900	Sat	5561 171		CW	(HFD)
M14	24-12-2013	1820	Tue	4636 186 ...		CW	(RWO)
M21	8-12-2013	2039	Sun	3322	Russian Air Defence =990042?0?????	CW	(MPJ)
M21	10-12-2013	1001	Tue	4951	Russian Air Defense =992009??0?????	CW	(JPL-FNL)
M21	10-12-2013	1001	Tue	7621	Russian Air Defense =9921400?9?????	CW	(JPL-FNL)
M21	13-12-2013	1931	Fri	4865.5	Russian Air Defence =992331??0????? =12047041923630 =22047901100800 =992332??0????? =992333??0?????	CW	(Topol)
M22	4-12-2013	1939	Wed	4331	4XZ: Isr-N Haifa vvv de 4xz 4xz idling.	CW	(SW2)
M22	10-12-2013	0117	Tue	4331	VVE DE 4XZ 4XZ	CW	(LG2)
M23	14-12-2013	2130	Sat	3960	787 (R4) ends with a long tone ca 2 secs	CW	(Topol)
M24	17-12-2013	0405	Tue	5416	28373 09803 04646 (Cont'd) = = 724 724 103 103 00000	CW	(JPL-Sib)
M32	2-12-2013	1032	Mon	3312	P8TNDE WEF2 K. P8TN DE WU4A K. P8TN DE NHAC K. P8TN DE ISLT K. P8TN DE ISLT K	CW	(JPL-RUS)
M32	4-12-2013	1703	Wed	3216	NRO8 DE XITN QTC 400 14 2050 400 = .39 = WPPPP U..NS VZ (Cont'd)	CW	(JPL-Sib)
M32	8-12-2013	1426	Sun	5435	i.p. 14413 45041 89905 78047 ... 08050 = BBIS BBIS BBIS QTC 407 52 8 1600 407 = (See N&O 195)	CW	(JPL-Sib)
M32	8-12-2013	2008	Sun	3301	M1BY QTC ZAC AR 811 38 6 0008 11 = ZAC 288 =	CW	(PPA)
M32	8-12-2013	2032	Sun	2839	AAV1 DE SYVM ZPO ZYK ZEL QYT9	CW	(PPA)
M32	9-12-2013	0005	Mon	3274	AWAI DE QGB8 K	CW	(LG2)
M32	9-12-2013	0325	Mon	5941	7ZGR DE PR6O K. R QSA 3 K. QSY 64975 QSY 64975 K	CW	(JPL-Sib)
M32	9-12-2013	0944	Mon	7754	ZUZI 770 47 9 1437 770 = ZFG 353 69. = HUXWT MMMMM TTTTT EZRPO DMJYS (Cont'd)	CW	(JPL-FNL)
M32	9-12-2013	1304	Mon	22864	XXX WEGI WEGI 37907 02 S64 BEREZOWYJ 8276 6767 PEREPEÖKA 0667 Ü560 K	CW	(LG2)
M32	9-12-2013	2016	Mon	2692	KX3C: Russian Mil. Respondent to BHAC 3207 kHz. KX3C OK Z... etc QYT9 K.	CW	(MPJ)
M32	9-12-2013	2016	Mon	3207	Russian Mil. KX3C de BHAC ZVF ZTF ZVU QYT9 K. KX3C responding on 2692 kHz	CW	(MPJ)
M32	10-12-2013	1611	Tue	3413	UXLF DE 9U2E K. UXLF DE 9U2E K. 3AP5 DE 9U2E K. 3AP5 K. R K	CW	(JPL-FNL)
M32	13-12-2013	1931	Fri	4759	Russian Mil: IP2K DE 6CIL	CW	(Topol)
M32	13-12-2013	2002	Fri	4525.5	Russian Mil: ZMFZ DE 7NIG RK	CW	(Topol)
M32	15-12-2013	1931	Sun	3206	Russian Mil. TSIR DE L4PL RK. XPJT DE L4PL RK (see N&O 195)	CW	(Topol)
M32	22-12-2013	1147	Sun	3745	1SNF DE KKFO QRV K. 1SNF 354 50 22 1538 354 = ZEG 66AAAAA BK BK BK. 1SNF 354 50 22 1538 354 = ZEG = = AAAAA V...	CW	(JPL-FNL)
M32	23-12-2013	2056	Mon	3207	9WK9: Russian Mil. ... 9WK9 893 23 24 0046 893 = 649 = RKWOB PPPPP ÄPKQM ÜKATN IPVHW ... ÜKATN WRPWP 155 RPT AL K. Out station reads back on QSX freq 2692 kHz	CW	(MPJ)
M32	23-12-2013	2100	Mon	3207	9WK9: Russian Mil. Comms check with EDQX F7FA BDAE LXJ6 & 2BC8. All except BDAE respond on 2692 kHz.	CW	(MPJ)
M32	27-12-2013	1027	Fri	12741	Russian Mil. XXX XXX DE WEGI ...	CW	(LG2)
M32	29-12-2013	0154	Sun	10542	Tentative Russian Mil. Station RX7T; 5LG msg; preamble: QTC RX7T 6252 29052 1062 BT 5LG cryllic msg; simplex net	CW	(AtB)
M32a	9-12-2013	1400	Mon	9192	RCV: HQ Black Sea Fleet Sevastopol	CW	(LG2)
M32a	13-12-2013	2100	Fri	5928.5	Russian Navy: RLO DE RIT QTC 811 34 14 0057 811 = RADIOPROGNOZ 14123 03003 30001 etc.	CW	(Topol)
M32a	14-12-2013	1310	Sat	7861	RFH2 DE RAL2 QSA? K	CW	(JPL)
M32a	15-12-2013	2004	Sun	4041	VVV RMP DE RIQ97 ZZD?	CW	(Topol)
M32a	15-12-2013	2005	Sun	4041	RMP DE RIQ97 ZZD3 ZKM ZDR.	CW	(Topol)
M32a	15-12-2013	2008	Sun	4041	YDZKYEÜBAFJChÜÄEFKDBMVYWOVEUUDOCJLCAUG- KRYSRNC	CW	(Topol)

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M32a	16-12-2013	0540	Mon	4055	RCV: Russian navy "NAWIP 031 UM708 KARTA 32114 URCIRE I TRELXNEY 16 PM 20 D E T GM730"	CW	(BCI)
M32a	23-12-2013	1422	Mon	8014	RHQ33 DE RCV QSA? K. RCV DE RHQ33 QSA2	CW	(Tom)
M32a	24-12-2013	2000	Tue	5163	Russian Navy: VVV RMP RMP DE RJL9 RJL9 ZDK	CW	(LG2)
M32a	31-12-2013	1927	Tue	3396	RLD69 DE RCV QYT K. QSX 5578 AAA 5. RLD69 OK QYT 4 QWH 4 578 AAA5 K. RCV R K. RCV DE RLD69 QYT4 QSX 5042 AAA 5 K. RCV AS 1	CW	(JPL-Sib)
M32c	20-12-2013	1300	Fri	8112	W-Markers	CW	(Tom)
M32c	20-12-2013	1620	Fri	8112	W-Marker. Russian Air Force	CW	(MPJ)
M32c	21-12-2013	1600	Sat	5823	RGH2 DE RAL2 QSA? K. QSA4 ZNN ZNN VA VA RMW2 DE RAL2 QSA? K (see N&O 195)	CW	(JPL-FNL)
M32c	24-12-2013	1200	Tue	8112	W-marker	CW	(PPA)
M41	17-12-2013	1831	Tue	5733.5	PWZW: Rusian Air Defense VVV PWZW PWZW = )	CW	(PPA)
M42	2-12-2013	0150	Mon	16320	Russian Intel. Messages on links 13183, 13366, 57406, 08250, 41338	FSK 200/1000	(Dan)
M42	2-12-2013	0230	Mon	14880	Russian Intel. Messages on links 13366, 41018, 40990	FSK 200/1000	(Dan)
M42	3-12-2013	0150	Tue	16320	Russian Intel. Messages on links 13366, 41018, 57402, 41020, 41022	FSK 200/1000	(Dan)
M42	3-12-2013	0230	Tue	14880	Russian Intel. Messages on links 40962, 57470, 08226, 00048	FSK 200/1000	(Dan)
M42	5-12-2013	2000	Thu	5784	Russian intel	FSK 200/500	(HFD)
M42	5-12-2013	2010	Thu	4577	Russian intel	FSK 200/500	(HFD)
M42	5-12-2013	2020	Thu	3863	Russian intel	FSK 200/500	(HFD)
M42	6-12-2013	0150	Fri	16320	Russian Intel. Messages on links 41082,44182,57354	FSK 200/1000	(Dan)
M42	6-12-2013	0230	Fri	14880	Russian Intel. Messages on links 41018,19690,32830	FSK 200/1000	(Dan)
M42	6-12-2013	1308	Fri	16150	Russian diplo, tfc on link 10042	CROWD-36	(MCO)
M42	7-12-2013	1300	Sat	20562	Russian intel	FSK 200/500	(HFD)
M42	7-12-2013	1310	Sat	18193	Russian intel	FSK 200/500	(HFD)
M42	7-12-2013	1320	Sat	16107	Russian intel	FSK 200/500	(HFD)
M42	9-12-2013	0150	Mon	16320	Russian Intel. Messages on links 57445, 00127, 57403	FSK 200/1000	(Dan)
M42	9-12-2013	0230	Mon	14880	Russian Intel. Messages on links 01256, 16680, 50312	FSK 200/1000	(Dan)
M42	10-12-2013	0150	Tue	16320	Russian Intel. Messages on links 13876,32296,55451	FSK 200/1000	(Dan)
M42	10-12-2013	0230	Tue	14880	Russian Intel. Messages on link 00000	FSK 200/1000	(Dan)
M42	11-12-2013	0150	Wed	16320	Russian Intel. Messages on links 30903, 41017, 62288	FSK 200/1000	(Dan)
M42	11-12-2013	0230	Wed	14880	Russian Intel. Messages on links 12308, 04098, 41018, 39946, 16492, 04232	FSK 200/1000	(Dan)
M42	12-12-2013	0150	Thu	16320	Russian Intel. Messages on links 41018, 12543, 20509, 41019	FSK 200/1000	(Dan)
M42	12-12-2013	0230	Thu	14880	Russian Intel. Messages on links 32794, 61666, 01421, 41018, 57717, 08250, 04353	FSK 200/1000	(Dan)
M42	13-12-2013	0150	Fri	16320	Russian Intel. Messages on links 61503, 41018, 20581	FSK 200/1000	(Dan)
M42	13-12-2013	0230	Fri	14880	Russian Intel. Messages on links 13360, 41018, 41019	FSK 200/1000	(Dan)
M42	16-12-2013	0150	Mon	16320	Russian Intel. Messages on links 13334, 41018, 31752, 32826, 63546, 41016	FSK 200/1000	(Dan)
M42	16-12-2013	0230	Mon	14880	Russian Intel. Messages on links 61562, 41018	FSK 200/1000	(Dan)
M42	16-12-2013	1250	Mon	19140	Russian diplo	CROWD-36	(PH)
M42	16-12-2013	1350	Mon	19880	Russian diplo	CROWD-36	(PH)
M42	16-12-2013	1353	Mon	14632	Russian diplo	CROWD-36	(PH)
M42	17-12-2013	0150	Tue	16320	Russian Intel. Messages on links 05174, 62467, 41006, 00000, 58390	FSK 200/1000	(Dan)
M42	17-12-2013	0230	Tue	14880	Russian Intel. Messages on links 22679, 16044, 41018, 34828, 62471, 41082, 53122, 53141, 39750	FSK 200/1000	(Dan)
M42	18-12-2013	0150	Wed	16320	Russian Intel. Messages on links 29734, 61631, 61754, 49183	FSK 200/1000	(Dan)
M42	19-12-2013	0150	Thu	16320	Russian Intel. Messages on links 13374, 13318, 41018, 22998, 18591, 61822, 20359, 61403	FSK 200/1000	(Dan)
M42	19-12-2013	0230	Thu	14880	Russian Intel. Messages on links 13366, 41018, 40992, 41072, 40986	FSK 200/1000	(Dan)

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M42	19-12-2013	0801	Thu	18277	Russian diplo	CROWD-36	(PH)
M42	20-12-2013	0150	Fri	16320	Russian Intel. Messages on links 13503, 08176, 41018, 44221	FSK 200/1000	(Dan)
M42	20-12-2013	0230	Fri	14880	Russian Intel. Messages on links 05170, 41018, 40986	FSK 200/1000	(Dan)
M42	22-12-2013	0809	Sun	7526	Russian Gov/Intel. Multifigure groups like 070903063966478109 =83313	Baudot 200/500	(PPA)
M42	23-12-2013	0150	Mon	16320	Russian Intel. Messages on link 32824	FSK 200/1000	(Dan)
M42	23-12-2013	0230	Mon	14880	Russian Intel. Messages on links 12024, 41082, 51992, 13366, 41018, 41016	FSK 200/1000	(Dan)
M42	24-12-2013	0150	Tue	16320	Russian Intel. Messages on links 41018, 59252, 43066	FSK 200/1000	(Dan)
M42	24-12-2013	0230	Tue	14880	Russian Intel. Messages on links 64673, 14653, 62280, 14644, 61556	FSK 200/1000	(Dan)
M42	25-12-2013	0150	Wed	16320	Russian Intel. Messages on links 03296, 61503, 05012	FSK 200/1000	(Dan)
M42	25-12-2013	0230	Wed	14880	Russian Intel. Messages on links 13366, 41016, 41018, 32826	FSK 200/1000	(Dan)
M42	26-12-2013	0150	Thu	16320	Russian Intel. Messages on links 13366, 41018, 59509, 57727, 41023, 41087	FSK 200/1000	(Dan)
M42	26-12-2013	0230	Thu	14880	Russian Intel. Messages on links 13366, 41016, 41018, 32826	FSK 200/1000	(Dan)
M42	27-12-2013	0150	Fri	16320	Russian Intel. Messages on links 41020, 41082, 43124	FSK 200/1000	(Dan)
M42	27-12-2013	0230	Fri	14880	Russian Intel. Messages on links 41018, 57460, 43070, 42603	FSK 200/1000	(Dan)
M42	30-12-2013	0150	Mon	16320	Russian Intel. Messages on links 57470, 57402, 32826	FSK 200/1000	(Dan)
M42	30-12-2013	0230	Mon	14880	Russian Intel. Messages on links 41016, 41022, 41018	FSK 200/1000	(Dan)
M42	30-12-2013	0755	Mon	14641	Russian diplo	CROWD-36 + OFDM	(PH)
M42	30-12-2013	0810	Mon	18277	Russian diplo	CROWD-36	(PH)
M42	30-12-2013	1057	Mon	18277	Russian diplo	CROWD-36	(PH)
M42	31-12-2013	0150	Tue	16320	Russian Intel. Messages on links 41018, 32103, 28519	FSK 200/1000	(Dan)
M42	31-12-2013	0230	Tue	14880	Russian Intel. Messages on links 57658, 57402, 41018, 60548, 57402, 41082	FSK 200/1000	(Dan)
M42	31-12-2013	1404	Tue	17446	Russian Intel. Msg on link 32799	FSK 200/1000	(MCO)
M42	31-12-2013	1416	Tue	15874	Russian Intel. Msg on link 32799	FSK 200/1000	(MCO)
M51	13-12-2013	1936	Fri	3748	In tfc: KDCVK EGYTT TXNCQ SAWDA NEWLG GNTHE (Cont'd) NR 63D 10 20741728 1985 =	CW	(JPL-FNL)
M51	14-12-2013	0928	Sat	6825	FAV22 "AR MESI/DIMANCHE 6/LECON N1/3 VITESSE 1200 CW CODé BT MXSKW NCJDI"		(LG2)
M51	19-12-2013	0931	Thu	6825	DE FAV22 FAV22 FAV22 QLH 3881/6825 KHZ	CW	(LG2)
M51	19-12-2013	1644	Thu	20813.1	5LGs	CW	(MCO)
M89	1-12-2013	1219	Sun	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	1-12-2013	1220	Sun	6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5)	CW	(JPL)
M89	1-12-2013	1226	Sun	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	1-12-2013	1226	Sun	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //3761	CW	(JPL)
M89	1-12-2013	1229	Sun	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd)	CW	(JPL)
M89	1-12-2013	1251	Sun	4885	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	CW	(JPL)
M89	1-12-2013	1257	Sun	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	1-12-2013	1310	Sun	5405	In tfc - Machine sent - mostly unreadable	CW	(JPL)
M89	1-12-2013	1434	Sun	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	1-12-2013	1436	Sun	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	1-12-2013	1436	Sun	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //3761	CW	(JPL)
M89	1-12-2013	1438	Sun	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	1-12-2013	1438	Sun	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	1-12-2013	1510	Sun	5230	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	1-12-2013	1512	Sun	3761	V YUQW (x3) DE ASDF (x2) (Cont'd)	CW	(JPL)
M89	1-12-2013	1630	Sun	3777	v hf2l hf2l hf2l de drv8 drv8	CW	(AtB)
M89	1-12-2013	1825	Sun	3761	v yuqw yuqw yuqw de asdf asdf	CW	(AtB)
M89	1-12-2013	1956	Sun	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	1-12-2013	1957	Sun	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	1-12-2013	1957	Sun	5230	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)

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M89	1-12-2013	1959	Sun	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	1-12-2013	1959	Sun	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //3761	CW	(JPL)
M89	1-12-2013	2000	Sun	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	1-12-2013	2000	Sun	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	1-12-2013	2001	Sun	4225	V 7NPE (x3) DE QV5B (x2) (Cont'd)	CW	(JPL)
M89	2-12-2013	0327	Mon	5801	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //10180	CW	(JPL)
M89	2-12-2013	0327	Mon	10180	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5801	CW	(JPL)
M89	2-12-2013	1013	Mon	5588	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	2-12-2013	1016	Mon	7582	V 7NPE (x3) DE QV5B (x2) (Cont'd) //8110	CW	(JPL)
M89	2-12-2013	1016	Mon	8110	V 7NPE (x3) DE QV5B (x2) (Cont'd) //7582	CW	(JPL)
M89	2-12-2013	1017	Mon	10210	V YUQW (x3) DE ASDF (x2) (Cont'd)	CW	(JPL)
M89	2-12-2013	1020	Mon	6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //10640	CW	(JPL)
M89	2-12-2013	1020	Mon	10640	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //6840	CW	(JPL)
M89	2-12-2013	1025	Mon	3797	A3N4 AR. CQ ../5838 4451 5511 MSG NR 1242 CK 98 42 1202 1820 RMKS 412.(see N&O 195)	CW	(JPL)
M89	2-12-2013	1025	Mon	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	2-12-2013	1034	Mon	6666	In tfc: 347N 3NU5 4T7A 5D3N 72 ? 7UAT 465N (see N&O 195)	CW	(JPL)
M89	2-12-2013	1052	Mon	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //7602	CW	(JPL)
M89	2-12-2013	1052	Mon	7602	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	2-12-2013	1544	Mon	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	2-12-2013	1545	Mon	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	2-12-2013	1545	Mon	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //3761	CW	(JPL)
M89	2-12-2013	1547	Mon	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	2-12-2013	1547	Mon	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	2-12-2013	1549	Mon	4225	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	2-12-2013	1549	Mon	5500	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	2-12-2013	1556	Mon	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	2-12-2013	1801	Mon	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	2-12-2013	1802	Mon	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd)	CW	(JPL)
M89	2-12-2013	1802	Mon	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	2-12-2013	1803	Mon	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	2-12-2013	1809	Mon	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	2-12-2013	1811	Mon	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	2-12-2013	1811	Mon	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //3761	CW	(JPL)
M89	2-12-2013	1813	Mon	5500	V 7NPE (x3) DE QV5B (x2) (Cont'd)	CW	(JPL)
M89	2-12-2013	1820	Mon	4860	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //6840	CW	(JPL)
M89	2-12-2013	1820	Mon	6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //4860	CW	(JPL)
M89	2-12-2013	2114	Mon	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	2-12-2013	2115	Mon	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	2-12-2013	2117	Mon	3761	V YUQW (x3) DE ASDF (x2) (Cont'd)	CW	(JPL)
M89	2-12-2013	2119	Mon	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	2-12-2013	2119	Mon	4225	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	2-12-2013	2120	Mon	4860	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //6840	CW	(JPL)
M89	2-12-2013	2120	Mon	6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //4860	CW	(JPL)
M89	2-12-2013	2313	Mon	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	2-12-2013	2313	Mon	4225	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	2-12-2013	2314	Mon	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	2-12-2013	2314	Mon	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //3761	CW	(JPL)
M89	2-12-2013	2316	Mon	4225	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	2-12-2013	2316	Mon	5500	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	2-12-2013	2320	Mon	4860	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //6840	CW	(JPL)
M89	2-12-2013	2320	Mon	6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //4860	CW	(JPL)
M89	3-12-2013	1010	Tue	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	3-12-2013	1031	Tue	5588	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	3-12-2013	1033	Tue	8750	V YUQW (x3) DE ASDF (x2) (Cont'd) //10210	CW	(JPL)

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M89	3-12-2013	1033	Tue	10210	V YUQW (x3) DE ASDF (x2) (Cont'd) //8750	CW	(JPL)
M89	3-12-2013	1036	Tue	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	3-12-2013	1036	Tue	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	3-12-2013	1038	Tue	4225	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	3-12-2013	1038	Tue	5500	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	3-12-2013	1042	Tue	7777	In chat: 6ISH AR K. N S EEEE U E GA K. AGN (see N&O 195)	CW	(JPL)
M89	3-12-2013	1107	Tue	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	3-12-2013	1107	Tue	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //3761	CW	(JPL)
M89	3-12-2013	1114	Tue	5801	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	3-12-2013	1119	Tue	4487	In chat: A63U AR K. R RPT 5.. (Both stations on this frequency) RPT 52 TO57W K (see N&O 195)	CW	(JPL)
M89	3-12-2013	1142	Tue	5814	In chat: RMKS 134 TO 5678/0123 = (see N&O 195)	CW	(JPL)
M89	3-12-2013	1303	Tue	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	3-12-2013	1306	Tue	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	3-12-2013	1306	Tue	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //3761	CW	(JPL)
M89	3-12-2013	1307	Tue	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	3-12-2013	1307	Tue	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	3-12-2013	1308	Tue	4225	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	3-12-2013	1308	Tue	5500	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	3-12-2013	1312	Tue	7777	DKN5 in tfc: ICE = 8522 AR K (long session. See N&O 195)	CW	(JPL)
M89	3-12-2013	1413	Tue	4474	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	CW	(JPL)
M89	3-12-2013	1420	Tue	4860	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //6840	CW	(JPL)
M89	3-12-2013	1420	Tue	6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //4860	CW	(JPL)
M89	3-12-2013	1541	Tue	6666	In chat/tfc: U2B U2B USB U2B UU2B U2B U (see N&O 195)	CW	(JPL)
M89	3-12-2013	1902	Tue	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	3-12-2013	1909	Tue	4225	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	3-12-2013	1909	Tue	5500	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	3-12-2013	1911	Tue	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	3-12-2013	1911	Tue	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //3761	CW	(JPL)
M89	3-12-2013	1913	Tue	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	3-12-2013	1913	Tue	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	3-12-2013	1920	Tue	4860	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //6840	CW	(JPL)
M89	3-12-2013	1920	Tue	6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //4860	CW	(JPL)
M89	3-12-2013	1959	Tue	3797	81/5121/12/04/0430/167/A/69/60 AR. UGT COMM = 254/081/5121/12/04/0430/167/A/69/60 AR	CW	(JPL)
M89	4-12-2013	1142	Wed	5596	In chat: = 4UN5 5734 5A3D (Cont'Ed) AR	CW	(JPL)
M89	4-12-2013	1149	Wed	5801	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //10180	CW	(JPL)
M89	4-12-2013	1149	Wed	10180	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5801	CW	(JPL)
M89	4-12-2013	1152	Wed	5588	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	4-12-2013	1155	Wed	5510	MWUA DE 2GLJ N3A6 TNT3 N76D (Cont'Ed) AR HR WK NR CW 1. VV MWUA DE 2GLJ K. V	CW	(JPL)
M89	4-12-2013	1648	Wed	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	4-12-2013	1650	Wed	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	4-12-2013	1652	Wed	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	4-12-2013	1652	Wed	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //3761	CW	(JPL)
M89	4-12-2013	1654	Wed	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	4-12-2013	1654	Wed	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	4-12-2013	1720	Wed	4860	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //6840	CW	(JPL)
M89	4-12-2013	1720	Wed	6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //4860	CW	(JPL)
M89	4-12-2013	1828	Wed	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	4-12-2013	1828	Wed	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //3761	CW	(JPL)
M89	4-12-2013	1829	Wed	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd)	CW	(JPL)
M89	4-12-2013	1836	Wed	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	4-12-2013	1837	Wed	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	4-12-2013	2104	Wed	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	4-12-2013	2105	Wed	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)

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M89	4-12-2013	2106	Wed	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	4-12-2013	2106	Wed	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //3761	CW	(JPL)
M89	4-12-2013	2107	Wed	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd)	CW	(JPL)
M89	4-12-2013	2120	Wed	6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5)	CW	(JPL)
M89	5-12-2013	0120	Thu	6773	V H2FL (x3) DE DRV8 (x2) (Cont'd)	CW	(JPL)
M89	5-12-2013	0125	Thu	6666	In tfc: 199 29 1205 RMKS 9139 TO 5539 K (see N&O 195)	CW	(JPL)
M89	5-12-2013	0137	Thu	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //7602	CW	(JPL)
M89	5-12-2013	0137	Thu	7602	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	5-12-2013	0959	Thu	5801	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //10180	CW	(JPL)
M89	5-12-2013	0959	Thu	10180	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5801	CW	(JPL)
M89	5-12-2013	1003	Thu	5581	V YUQW (x3) DE ASDF (x2) (Cont'd)	CW	(JPL)
M89	5-12-2013	1020	Thu	6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //10640	CW	(JPL)
M89	5-12-2013	1020	Thu	10640	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //6840	CW	(JPL)
M89	5-12-2013	1025	Thu	5588	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	5-12-2013	1026	Thu	5581	V YUQW (x3) DE ASDF (x2) (Cont'd)	CW	(JPL)
M89	5-12-2013	1029	Thu	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	5-12-2013	1029	Thu	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	5-12-2013	1032	Thu	7788	DE TD TBM9 VV VVV	CW	(JPL)
M89	5-12-2013	1230	Thu	5485	V YUQW (x3) DE ASDF (x2) (Cont'd)	CW	(JPL)
M89	5-12-2013	1326	Thu	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	5-12-2013	1332	Thu	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	5-12-2013	1332	Thu	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	5-12-2013	1337	Thu	7777	In tfc: 21 TO 2.10. 176 TO 2945 K (see N&O 195)	CW	(JPL)
M89	5-12-2013	1720	Thu	4860	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //6840	CW	(JPL)
M89	5-12-2013	1720	Thu	6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //4860	CW	(JPL)
M89	5-12-2013	1725	Thu	5555	In tfc: = D7A6 DT36 U77N 6436 4TAU 6U57 III = UAAU 745T A5U5 5746 6543 757U (Cont'd)	CW	(JPL)
M89	5-12-2013	1750	Thu	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5230	CW	(JPL)
M89	5-12-2013	1750	Thu	5230	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	5-12-2013	1753	Thu	5485	V YUQW (x3) DE ASDF (x2) (Cont'd)	CW	(JPL)
M89	5-12-2013	2000	Thu	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	5-12-2013	2001	Thu	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	5-12-2013	2001	Thu	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	5-12-2013	2004	Thu	5485	V YUQW (x3) DE ASDF (x2) (Cont'd)	CW	(JPL)
M89	5-12-2013	2008	Thu	5555	In callup: 05 05 05	CW	(JPL)
M89	5-12-2013	2019	Thu	3733	In tfc: DA73 5NT6 6.UN 4N7D NA7D (see N&O 195)	CW	(JPL)
M89	5-12-2013	2045	Thu	3740	In tfc: 6A73 N.4A T... (Cont'd/Ed)	CW	(JPL)
M89	5-12-2013	2220	Thu	6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5)	CW	(JPL)
M89	5-12-2013	2225	Thu	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	5-12-2013	2226	Thu	5485	V YUQW (x3) DE ASDF (x2) (Cont'd)	CW	(JPL)
M89	5-12-2013	2227	Thu	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	5-12-2013	2227	Thu	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	5-12-2013	2236	Thu	4474	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	CW	(JPL)
M89	6-12-2013	1118	Fri	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	6-12-2013	1118	Fri	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	6-12-2013	1119	Fri	5485	V YUQW (x3) DE ASDF (x2) (Cont'd)	CW	(JPL)
M89	6-12-2013	1120	Fri	4860	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //6840	CW	(JPL)
M89	6-12-2013	1120	Fri	6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //4860	CW	(JPL)
M89	6-12-2013	1125	Fri	10180	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	6-12-2013	1126	Fri	6666	In tfc: AR //A. 8Q EEE O EEEE 80W K. //B -Both station on this frequency- (see N&O 195)	CW	(JPL)
M89	6-12-2013	1207	Fri	5555	In tfc: UT34 65NA. 05 05 TN34 D455 7NTU A34U (see N&O 195)	CW	(JPL)
M89	6-12-2013	1532	Fri	3380	In tfc: 53A4 T5NN U755 UNNT 7NTD 54DT (Cont'd) III =	CW	(JPL)
M89	6-12-2013	1539	Fri	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	6-12-2013	1549	Fri	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd)	CW	(JPL)



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M89	6-12-2013	1550	Fri	3761	V YUQW (x3) DE ASDF (x2) (Cont'd)	CW	(JPL)
M89	6-12-2013	1558	Fri	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	6-12-2013	1600	Fri	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	6-12-2013	1600	Fri	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //3761	CW	(JPL)
M89	6-12-2013	1602	Fri	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	6-12-2013	1602	Fri	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	6-12-2013	1759	Fri	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	6-12-2013	1802	Fri	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	6-12-2013	1802	Fri	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //3761	CW	(JPL)
M89	6-12-2013	1804	Fri	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	6-12-2013	1804	Fri	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	6-12-2013	1807	Fri	5555	R R DE B9MR K. R QSA 2 K. R R = 5B73 AR K (see N&O 195)	CW	(JPL)
M89	6-12-2013	1954	Fri	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	6-12-2013	1954	Fri	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //3761	CW	(JPL)
M89	6-12-2013	1955	Fri	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	6-12-2013	1956	Fri	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //7602	CW	(JPL)
M89	6-12-2013	1956	Fri	7602	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	6-12-2013	1958	Fri	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	6-12-2013	1958	Fri	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	6-12-2013	2252	Fri	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	6-12-2013	2254	Fri	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //7602	CW	(JPL)
M89	6-12-2013	2254	Fri	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	6-12-2013	2254	Fri	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //3761	CW	(JPL)
M89	6-12-2013	2254	Fri	7602	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	6-12-2013	2256	Fri	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	6-12-2013	2256	Fri	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	7-12-2013	0930	Sat	5588	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	7-12-2013	0932	Sat	5581	V YUQW (x3) DE ASDF (x2) (Cont'd) //10210	CW	(JPL)
M89	7-12-2013	0932	Sat	10210	V YUQW (x3) DE ASDF (x2) (Cont'd) //5581	CW	(JPL)
M89	7-12-2013	0935	Sat	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	7-12-2013	0935	Sat	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	7-12-2013	0953	Sat	5801	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //10180	CW	(JPL)
M89	7-12-2013	0953	Sat	10180	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5801	CW	(JPL)
M89	7-12-2013	1207	Sat	5555	In tfc: 1009161/913 AR (see N&O 195)	CW	(JPL)
M89	7-12-2013	2242	Sat	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	7-12-2013	2244	Sat	7602	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	7-12-2013	2245	Sat	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	7-12-2013	2245	Sat	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //3761	CW	(JPL)
M89	7-12-2013	2246	Sat	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	7-12-2013	2246	Sat	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	7-12-2013	2251	Sat	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	8-12-2013	0927	Sun	8750	V YUQW (x3) DE ASDF (x2) (Cont'd) //10210	CW	(JPL)
M89	8-12-2013	0927	Sun	10210	V YUQW (x3) DE ASDF (x2) (Cont'd) //8750	CW	(JPL)
M89	8-12-2013	0929	Sun	5801	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //10180	CW	(JPL)
M89	8-12-2013	0929	Sun	10180	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5801	CW	(JPL)
M89	8-12-2013	0930	Sun	10271	In tfc: 8 T0 10150 K (see N&O 195)	CW	(JPL)
M89	8-12-2013	0958	Sun	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	8-12-2013	0958	Sun	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	8-12-2013	0959	Sun	5588	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	8-12-2013	1001	Sun	8888	In tfc: K R R 2P 2P K. AGN (see N&O 195)	CW	(JPL)
M89	8-12-2013	1418	Sun	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //7602	CW	(JPL)
M89	8-12-2013	1418	Sun	7602	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	8-12-2013	1420	Sun	6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5)	CW	(JPL)
M89	8-12-2013	1460	Sun	4860	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //6840	CW	(JPL)
M89	8-12-2013	1460	Sun	6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //4860	CW	(JPL)
M89	8-12-2013	1625	Sun	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)

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M89	8-12-2013	1626	Sun	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //7602	CW	(JPL)
M89	8-12-2013	1626	Sun	7602	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	8-12-2013	1628	Sun	5485	V YUQW (x3) DE ASDF (x2) (Cont'd)	CW	(JPL)
M89	8-12-2013	1629	Sun	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd)	CW	(JPL)
M89	8-12-2013	1637	Sun	3761	V YUQW (x3) DE ASDF (x2) (Cont'd)	CW	(JPL)
M89	8-12-2013	1928	Sun	4225	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	8-12-2013	1928	Sun	5500	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	8-12-2013	1930	Sun	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	8-12-2013	1931	Sun	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //7602	CW	(JPL)
M89	8-12-2013	1931	Sun	7602	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	8-12-2013	1932	Sun	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	8-12-2013	1932	Sun	4385	V YUQW (x3) DE ASDF (x2) (Cont'd)	CW	(JPL)
M89	8-12-2013	1934	Sun	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd)	CW	(JPL)
M89	9-12-2013	0307	Mon	5500	V 7NPE (x3) DE QV5B (x2) (Cont'd) //8110	CW	(JPL)
M89	9-12-2013	0307	Mon	8110	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	9-12-2013	0320	Mon	6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //10640	CW	(JPL)
M89	9-12-2013	0320	Mon	10640	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //6840	CW	(JPL)
M89	9-12-2013	0331	Mon	7602	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	9-12-2013	0336	Mon	7538	In tfc: MSG NR 5710 CK 9.. NR 5711 43EEEE (see N&O 195)	CW	(JPL)
M89	9-12-2013	0932	Mon	5801	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //10180	CW	(JPL)
M89	9-12-2013	0932	Mon	10180	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5801	CW	(JPL)
M89	9-12-2013	0945	Mon	7777	In tfc: TU4. 6T54 D3DT T3A6 (Cont'ed) = III 7PG 7PG GA = = (see N&O 195)	CW	(JPL)
M89	9-12-2013	1320	Mon	4860	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //6840	CW	(JPL)
M89	9-12-2013	1320	Mon	6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //4860	CW	(JPL)
M89	9-12-2013	1325	Mon	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	9-12-2013	1326	Mon	3761	ASDF in tfc: 2130 RMKS 3892 TO 6273/..12 = (see N&O 195) //5485	CW	(JPL)
M89	9-12-2013	1326	Mon	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	9-12-2013	1336	Mon	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd)	CW	(JPL)
M89	9-12-2013	1338	Mon	4225	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	9-12-2013	1338	Mon	5500	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	9-12-2013	1341	Mon	4474	GL3Y DE GL8X in tfc. Long session. See N&O 195)	CW	(JPL)
M89	9-12-2013	1525	Mon	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	9-12-2013	1526	Mon	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	9-12-2013	1526	Mon	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	9-12-2013	1527	Mon	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd)	CW	(JPL)
M89	9-12-2013	1528	Mon	4225	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	9-12-2013	1528	Mon	5500	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	9-12-2013	1545	Mon	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5230	CW	(JPL)
M89	9-12-2013	1545	Mon	5230	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	9-12-2013	1755	Mon	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	9-12-2013	1757	Mon	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	9-12-2013	1757	Mon	5230	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	9-12-2013	1758	Mon	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd)	CW	(JPL)
M89	9-12-2013	1759	Mon	5500	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5555	CW	(JPL)
M89	9-12-2013	1759	Mon	5555	V 7NPE (x3) DE QV5B (x2) (Cont'd)	CW	(JPL)
M89	9-12-2013	1813	Mon	6666	Callup 33 33 33	CW	(JPL)
M89	9-12-2013	1826	Mon	5555	In tfc: 4T77 TATN TT6T NTA4 DNT4 D637	CW	(JPL)
M89	9-12-2013	1847	Mon	5555	In tfc: N5T6 NT54 A75U 63AU 76DA III = (see N&O 195)	CW	(JPL)
M89	9-12-2013	2155	Mon	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	9-12-2013	2156	Mon	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	9-12-2013	2159	Mon	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	9-12-2013	2159	Mon	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	9-12-2013	2200	Mon	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd)	CW	(JPL)

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M89	9-12-2013	2201	Mon	4225	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	9-12-2013	2201	Mon	5500	V 7NPE (x3) DE QV5B (x2) (Cont'd)	CW	(JPL)
M89	9-12-2013	2203	Mon	5555	In tfc: EEEE B A66 = 7DAV 7DA3 64N7 TU7N A33D (see N&O 195)	CW	(JPL)
M89	10-12-2013	0120	Tue	6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //10640	CW	(JPL)
M89	10-12-2013	0120	Tue	10640	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //6840	CW	(JPL)
M89	10-12-2013	0125	Tue	10210	V YUQW (x3) DE ASDF (x2) (Cont'd)	CW	(JPL)
M89	10-12-2013	0126	Tue	6773	V H2FL (x3) DE DRV8 (x2) (Cont'd)	CW	(JPL)
M89	10-12-2013	0127	Tue	7582	V 7NPE (x3) DE QV5B (x2) (Cont'd)	CW	(JPL)
M89	10-12-2013	0127	Tue	7788	In tfc: AS AS RPT QSL / QSL 0927 K R R H NR OEEEE NR GA (see N&O 195)	CW	(JPL)
M89	10-12-2013	0138	Tue	5555	In tfc: AND4 356U 7TDA N456 7DN3 (Cont'Ed) AR AR 05 05 05 (see N&O 195)	CW	(JPL)
M89	10-12-2013	0931	Tue	8750	V YUQW (x3) DE ASDF (x2) (Cont'd) //10210	CW	(JPL)
M89	10-12-2013	0931	Tue	10210	V YUQW (x3) DE ASDF (x2) (Cont'd) //8750	CW	(JPL)
M89	10-12-2013	0934	Tue	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd)	CW	(JPL)
M89	10-12-2013	0936	Tue	7582	V 7NPE (x3) DE QV5B (x2) (Cont'd) //8110	CW	(JPL)
M89	10-12-2013	0936	Tue	8110	V 7NPE (x3) DE QV5B (x2) (Cont'd) //7582	CW	(JPL)
M89	10-12-2013	0952	Tue	5801	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //10180	CW	(JPL)
M89	10-12-2013	0952	Tue	10180	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5801	CW	(JPL)
M89	10-12-2013	1333	Tue	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //7602	CW	(JPL)
M89	10-12-2013	1333	Tue	7602	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	10-12-2013	1354	Tue	6616	In tfc: U7A4 D... 34 63UT .. (Cont'Ed)	CW	(JPL)
M89	10-12-2013	1358	Tue	6470	In tfc: R QSL 2200 K. 1N. R QSL 2200 K. R QSL 2200 K. R SK	CW	(JPL)
M89	10-12-2013	1413	Tue	5588	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	10-12-2013	1413	Tue	5700	In tfc: 24P = = = 3ADT 37NN 3U75 U4N. (Cont'Ed) AR	CW	(JPL)
M89	10-12-2013	2050	Tue	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //7602	CW	(JPL)
M89	10-12-2013	2050	Tue	7602	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	10-12-2013	2052	Tue	3761	V YUQW (x3) DE ASDF (x2) (Cont'd)	CW	(JPL)
M89	10-12-2013	2100	Tue	6556	In tfc: RPT 11W TO 29W K (see N&O 195)	CW	(JPL)
M89	11-12-2013	0136	Wed	5555	In callup: 05 05 05 (Cont'Ed)	CW	(JPL)
M89	11-12-2013	0141	Wed	5801	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //10180	CW	(JPL)
M89	11-12-2013	0141	Wed	10180	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5801	CW	(JPL)
M89	11-12-2013	0143	Wed	5755	In tfc: NR 180 EEEEE AGN NR 1805/EX 0943 RMKS CQ = (see N&O 195)	CW	(JPL)
M89	11-12-2013	1028	Wed	5588	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	11-12-2013	1031	Wed	8750	V YUQW (x3) DE ASDF (x2) (Cont'd) //10210	CW	(JPL)
M89	11-12-2013	1031	Wed	10210	V YUQW (x3) DE ASDF (x2) (Cont'd) //8750	CW	(JPL)
M89	11-12-2013	1035	Wed	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd)	CW	(JPL)
M89	11-12-2013	1037	Wed	5555	In callup. Two stations sending at same time. DE 9KYR QSA 2 R NIL SK V NG TS VV VV	CW	(JPL)
M89	11-12-2013	1042	Wed	6666	In tfc: RMKS R K. RMKS 7914 TO 1497 R K	CW	(JPL)
M89	11-12-2013	1055	Wed	5555	In tfc: RMKS 6402 TO 3722 = = IV.EEEE = = IVLU1/UDNO2 = (see N&O 195)	CW	(JPL)
M89	11-12-2013	1107	Wed	7788	In tfc: 99 1211 1900 RMKS 3308 TO 3345 EEEE RMKS 3308 TO 3345 K K (see N&O 195)	CW	(JPL)
M89	11-12-2013	1123	Wed	7777	(GI5Q DE 8KRZ (see N&O 195)	CW	(JPL)
M89	11-12-2013	1131	Wed	8888	In tfc: A7A4 5D56 AR K. NR PT 18 III TO EEEEE (see N&O 195)	CW	(JPL)
M89	11-12-2013	1137	Wed	6666	In tfc: 30 1211 1920 RMKS 5345 TO 1637 K (see N&O 195)	CW	(JPL)
M89	11-12-2013	1153	Wed	5555	In tfc: QSA2 N QSA QSA2 22 QSA2 (see N&O 195)	CW	(JPL)
M89	11-12-2013	1620	Wed	4860	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //6840	CW	(JPL)
M89	11-12-2013	1620	Wed	6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //4860	CW	(JPL)
M89	11-12-2013	1628	Wed	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	11-12-2013	1631	Wed	5485	V YUQW (x3) DE ASDF (x2) (Cont'd)	CW	(JPL)
M89	11-12-2013	1632	Wed	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd)	CW	(JPL)
M89	11-12-2013	1640	Wed	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)

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M89	11-12-2013	1722	Wed	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd) 764U A3T4 4TUU TU6T CW (Cont'Ed) AR		(JPL)
M89	11-12-2013	2038	Wed	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	11-12-2013	2040	Wed	5485	V YUQW (x3) DE ASDF (x2) (Cont'd)	CW	(JPL)
M89	11-12-2013	2041	Wed	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd)	CW	(JPL)
M89	11-12-2013	2047	Wed	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	12-12-2013	1129	Thu	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	12-12-2013	1131	Thu	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	12-12-2013	1131	Thu	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //3761	CW	(JPL)
M89	12-12-2013	1138	Thu	5801	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //10180	CW	(JPL)
M89	12-12-2013	1138	Thu	10180	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5801	CW	(JPL)
M89	12-12-2013	1142	Thu	7777	In tfc: NR 47/CCK .. EEEE NR 47/CCK ... 2 112 ..RMKS (see N&O 195)	CW	(JPL)
M89	12-12-2013	1150	Thu	7727	In tfc: R AS VV 3RF DE 54TG K (see N&O 195)	CW	(JPL)
M89	12-12-2013	1150	Thu	7773	In tfc: NR GA K R NR 0. .. RMKS ... TO .... K (see N&O 195)	CW	(JPL)
M89	13-12-2013	0107	Fri	8888	In tfc: NR RPT 17W K. AGN NR RPT 17W K (see N&O 195)	CW	(JPL)
M89	13-12-2013	1114	Fri	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) ) //4512	CW	(JPL)
M89	13-12-2013	1114	Fri	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) ) //3797	CW	(JPL)
M89	13-12-2013	1311	Fri	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	13-12-2013	1311	Fri	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //3761	CW	(JPL)
M89	13-12-2013	1317	Fri	5500	In tfc: SNOAS WFYRB FCQCV MOASI QTWGL BXOLQ QJFPV ..NWD DKSLU WVLNH See N&O 195)	CW	(JPL)
M89	13-12-2013	1508	Fri	5500	In tfc: 11W KEKIW GA NR 027 78 NR 027 78 CK 62 62 = (see N&O 195)	CW	(JPL)
M89	13-12-2013	1544	Fri	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	13-12-2013	1544	Fri	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //3761	CW	(JPL)
M89	13-12-2013	1545	Fri	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) ) //4512	CW	(JPL)
M89	13-12-2013	1545	Fri	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) ) //3797	CW	(JPL)
M89	13-12-2013	1558	Fri	5555	In tfc: 05 05 55 55 05 05 05 (see N&O 195)	CW	(JPL)
M89	13-12-2013	1734	Fri	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	13-12-2013	1923	Fri	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	13-12-2013	1926	Fri	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	13-12-2013	1926	Fri	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //3761	CW	(JPL)
M89	13-12-2013	1927	Fri	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) ) //4512	CW	(JPL)
M89	13-12-2013	1927	Fri	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) ) //3797	CW	(JPL)
M89	13-12-2013	1943	Fri	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	13-12-2013	2231	Fri	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	13-12-2013	2232	Fri	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	13-12-2013	2232	Fri	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //3761	CW	(JPL)
M89	13-12-2013	2233	Fri	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) ) //4512	CW	(JPL)
M89	13-12-2013	2233	Fri	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) ) //3797	CW	(JPL)
M89	15-12-2013	0207	Sun	6666	In tfc: 75AD 75N6 D4UA 64AU 5UN6 (see N&O 195)	CW	(JPL)
M89	15-12-2013	0919	Sun	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	15-12-2013	0920	Sun	6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //10640	CW	(JPL)
M89	15-12-2013	0920	Sun	10640	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //6840	CW	(JPL)
M89	15-12-2013	0926	Sun	8750	V YUQW (x3) DE ASDF (x2) (Cont'd) //10210	CW	(JPL)
M89	15-12-2013	0926	Sun	10210	V YUQW (x3) DE ASDF (x2) (Cont'd) //8750	CW	(JPL)
M89	15-12-2013	0931	Sun	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	15-12-2013	0931	Sun	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	15-12-2013	1003	Sun	5801	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //10180	CW	(JPL)
M89	15-12-2013	1003	Sun	10180	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5801	CW	(JPL)
M89	15-12-2013	1358	Sun	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	15-12-2013	1400	Sun	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	15-12-2013	1400	Sun	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //3761	CW	(JPL)
M89	15-12-2013	1403	Sun	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd)	CW	(JPL)
M89	15-12-2013	1818	Sun	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)

enigma	date	UTC	day	frequency	remarks	mode	contributor
M89	15-12-2013	1919	Sun	4225	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	15-12-2013	1919	Sun	5500	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	15-12-2013	1920	Sun	4860	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //6840	CW	(JPL)
M89	15-12-2013	1920	Sun	6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //4860	CW	(JPL)
M89	15-12-2013	1925	Sun	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	15-12-2013	1926	Sun	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5230	CW	(JPL)
M89	15-12-2013	1926	Sun	5230	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	15-12-2013	1929	Sun	5485	V YUQW (x3) DE ASDF (x2) (Cont'd)	CW	(JPL)
M89	15-12-2013	1940	Sun	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5230	CW	(JPL)
M89	15-12-2013	1940	Sun	5230	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	15-12-2013	1942	Sun	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd)	CW	(JPL)
M89	16-12-2013	0013	Mon	5588	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	16-12-2013	0019	Mon	8750	V YUQW (x3) DE ASDF (x2) (Cont'd) //10210	CW	(JPL)
M89	16-12-2013	0019	Mon	10210	V YUQW (x3) DE ASDF (x2) (Cont'd) //8750	CW	(JPL)
M89	16-12-2013	0020	Mon	4860	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //6840	CW	(JPL)
M89	16-12-2013	0020	Mon	6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //4860	CW	(JPL)
M89	16-12-2013	0026	Mon	7582	V 7NPE (x3) DE QV5B (x2) (Cont'd)	CW	(JPL)
M89	16-12-2013	0030	Mon	6773	V H2FL (x3) DE DRV8 (x2) (Cont'd)	CW	(JPL)
M89	16-12-2013	0032	Mon	8888	In tfc: FF NR 07/EX 01EEE CJ1B.BDEEE DC4T. (see N&O 195)	CW	(JPL)
M89	16-12-2013	0047	Mon	6666	In tfc: CGSYMRS ..HF..PHFAY GNBRJ JSCQH EEE CEEE AR (see N&O 195)	CW	(JPL)
M89	16-12-2013	0115	Mon	5555	In tfc: 756A DTUN 345D NT6A 37U4 (Cont'd) III AR (see N&O 195)	CW	(JPL)
M89	16-12-2013	0239	Mon	5801	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //10180	CW	(JPL)
M89	16-12-2013	0239	Mon	10180	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5801	CW	(JPL)
M89	16-12-2013	0911	Mon	8750	V YUQW (x3) DE ASDF (x2) (Cont'd) //10210	CW	(JPL)
M89	16-12-2013	0911	Mon	10210	V YUQW (x3) DE ASDF (x2) (Cont'd) //8750	CW	(JPL)
M89	16-12-2013	0914	Mon	10180	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	16-12-2013	0915	Mon	8110	V 7NPE (x3) DE QV5B (x2) (Cont'd)	CW	(JPL)
M89	16-12-2013	0917	Mon	6773	V H2FL (x3) DE DRV8 (x2) (Cont'd) //8040	CW	(JPL)
M89	16-12-2013	0917	Mon	8040	V H2FL (x3) DE DRV8 (x2) (Cont'd) //6773	CW	(JPL)
M89	16-12-2013	0920	Mon	6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //10640	CW	(JPL)
M89	16-12-2013	0920	Mon	10640	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //6840	CW	(JPL)
M89	16-12-2013	0927	Mon	8888	In tfc: VV O5 05	CW	(JPL)
M89	16-12-2013	1757	Mon	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	16-12-2013	1759	Mon	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5230	CW	(JPL)
M89	16-12-2013	1759	Mon	5230	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	16-12-2013	1801	Mon	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	16-12-2013	1801	Mon	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //3761	CW	(JPL)
M89	16-12-2013	1803	Mon	5500	V 7NPE (x3) DE QV5B (x2) (Cont'd)	CW	(JPL)
M89	16-12-2013	1807	Mon	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	16-12-2013	1807	Mon	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	16-12-2013	1820	Mon	4860	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //6840	CW	(JPL)
M89	16-12-2013	1820	Mon	6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //4860	CW	(JPL)
M89	16-12-2013	1943	Mon	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	16-12-2013	1944	Mon	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5230	CW	(JPL)
M89	16-12-2013	1944	Mon	5230	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	16-12-2013	1945	Mon	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	16-12-2013	1945	Mon	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //3761	CW	(JPL)
M89	16-12-2013	1946	Mon	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	16-12-2013	1946	Mon	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	16-12-2013	1947	Mon	5500	V 7NPE (x3) DE QV5B (x2) (Cont'd)	CW	(JPL)
M89	16-12-2013	1948	Mon	4474	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	CW	(JPL)
M89	16-12-2013	1949	Mon	5555	In tfc: 66 (Carrier) V T AR K 7.55 BT 554AA. 73WI 4S 373AAR = (see N&O 195)	CW	(JPL)

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M89	17-12-2013	0025	Tue	7777	In tfc: RMKS .... K. R GA K = 3431 N4UA 5NT7 TN.. (see N&O 195)	CW	(JPL)
M89	17-12-2013	0117	Tue	6773	V H2FL (x3) DE DRV8 (x2) (Cont'd)	CW	(JPL)
M89	17-12-2013	0118	Tue	7582	V 7NPE (x3) DE QV5B (x2) (Cont'd)	CW	(JPL)
M89	17-12-2013	0120	Tue	6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //10640	CW	(JPL)
M89	17-12-2013	0120	Tue	10640	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //6840	CW	(JPL)
M89	17-12-2013	0347	Tue	8750	V YUQW (x3) DE ASDF (x2) (Cont'd)	CW	(JPL)
M89	17-12-2013	0349	Tue	7582	V 7NPE (x3) DE QV5B (x2) (Cont'd)	CW	(JPL)
M89	17-12-2013	0403	Tue	5801	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //10180	CW	(JPL)
M89	17-12-2013	0403	Tue	10180	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5801	CW	(JPL)
M89	17-12-2013	0420	Tue	6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //10640	CW	(JPL)
M89	17-12-2013	0420	Tue	10640	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //6840	CW	(JPL)
M89	17-12-2013	0956	Tue	5801	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //10180	CW	(JPL)
M89	17-12-2013	0956	Tue	10180	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5801	CW	(JPL)
M89	17-12-2013	1002	Tue	7740	V CQ CQ CQ DE DP9J DP9J. HR NIL SK GB (Cont'd)	CW	(JPL)
M89	17-12-2013	1406	Tue	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	17-12-2013	1408	Tue	5485	V YUQW (x3) DE ASDF (x2) (Cont'd)	CW	(JPL)
M89	17-12-2013	1410	Tue	4225	V 7NPE (x3) DE QV5B (x2) (Cont'd)	CW	(JPL)
M89	17-12-2013	1412	Tue	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	17-12-2013	1412	Tue	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	17-12-2013	1420	Tue	4860	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //6840	CW	(JPL)
M89	17-12-2013	1420	Tue	6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //4860	CW	(JPL)
M89	17-12-2013	1645	Tue	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	17-12-2013	1647	Tue	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	17-12-2013	1648	Tue	5485	V YUQW (x3) DE ASDF (x2) (Cont'd)	CW	(JPL)
M89	17-12-2013	1649	Tue	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	17-12-2013	1649	Tue	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	17-12-2013	1651	Tue	4225	V 7NPE (x3) DE QV5B (x2) (Cont'd)	CW	(JPL)
M89	17-12-2013	2305	Tue	4474	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	CW	(JPL)
M89	17-12-2013	2307	Tue	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	17-12-2013	2309	Tue	5485	V YUQW (x3) DE ASDF (x2) (Cont'd)	CW	(JPL)
M89	17-12-2013	2310	Tue	5588	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	18-12-2013	1000	Wed	7740	V CQ (x3) DE DP9J (x2) (Cont'd) HR NIL SK GB (Cont'd - silent 1012z)	CW	(JPL)
M89	18-12-2013	1016	Wed	5801	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //10180	CW	(JPL)
M89	18-12-2013	1016	Wed	10180	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5801	CW	(JPL)
M89	18-12-2013	1020	Wed	6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //10640	CW	(JPL)
M89	18-12-2013	1150	Wed	5801	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //10180	CW	(JPL)
M89	18-12-2013	1150	Wed	10180	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5801	CW	(JPL)
M89	18-12-2013	1515	Wed	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	18-12-2013	1517	Wed	3761	V YUQW (x3) DE ASDF (x2) (Cont'd)	CW	(JPL)
M89	18-12-2013	1520	Wed	5555	In tfc: D4T5 AR. 1W BT 6..A AR K (see N&O 195)	CW	(JPL)
M89	18-12-2013	1719	Wed	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	18-12-2013	1720	Wed	4860	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //6840	CW	(JPL)
M89	18-12-2013	1720	Wed	6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //4860	CW	(JPL)
M89	18-12-2013	1725	Wed	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	18-12-2013	1725	Wed	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //3761	CW	(JPL)
M89	18-12-2013	1727	Wed	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	18-12-2013	1727	Wed	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	19-12-2013	0120	Thu	6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //10640	CW	(JPL)
M89	19-12-2013	0120	Thu	10640	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //6840	CW	(JPL)
M89	19-12-2013	0128	Thu	6773	V H2FL (x3) DE DRV8 (x2) (Cont'd)	CW	(JPL)
M89	19-12-2013	0130	Thu	6666	In tfc: A456 DU3N 4AT6 57DU 3UN4 DA67 (see N&O 195)	CW	(JPL)
M89	19-12-2013	0153	Thu	10210	V YUQW (x3) DE ASDF (x2) (Cont'd)	CW	(JPL)
M89	19-12-2013	0154	Thu	5801	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //10180	CW	(JPL)
M89	19-12-2013	0154	Thu	10180	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5801	CW	(JPL)

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M89	19-12-2013	0200	Thu	7740	V CQ CQ CQ DE DP9J DP9J AS AS TLL BT TLL LL M.R ALL L. TLL LL MTT HR	CW	(JPL)
M89	19-12-2013	1053	Thu	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	19-12-2013	1308	Thu	5485	V YUQW (x3) DE ASDF (x2) (Cont'd)	CW	(JPL)
M89	19-12-2013	1310	Thu	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	19-12-2013	1310	Thu	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	19-12-2013	1312	Thu	5555	In tfc: USE. QRO. U QSJ TO 03 EEEEE U QSJ TO NR 03 K (see N&O 195)	CW	(JPL)
M89	19-12-2013	1955	Thu	5485	V YUQW (x3) DE ASDF (x2) (Cont'd)	CW	(JPL)
M89	19-12-2013	1956	Thu	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	19-12-2013	1956	Thu	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	19-12-2013	2007	Thu	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5230	CW	(JPL)
M89	19-12-2013	2007	Thu	5230	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	20-12-2013	1000	Fri	7740	V CQ CQ CQ DE DP9J DP9J ... ALL ALL LL LL TO TO HR HR .SE PSE ALL LL TO HR PSE. ALL LL TO HR (1011z silent)	CW	(JPL)
M89	20-12-2013	1515	Fri	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //7602	CW	(JPL)
M89	20-12-2013	1515	Fri	7602	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	20-12-2013	1517	Fri	3761	V YUQW (x3) DE ASDF (x2) (Cont'd)	CW	(JPL)
M89	20-12-2013	1519	Fri	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd)	CW	(JPL)
M89	20-12-2013	1520	Fri	4474	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	CW	(JPL)
M89	20-12-2013	1520	Fri	6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5)	CW	(JPL)
M89	20-12-2013	1537	Fri	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	20-12-2013	1540	Fri	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	20-12-2013	1540	Fri	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //3761	CW	(JPL)
M89	20-12-2013	1543	Fri	7777	In tfc: 657A 4T36 DT.6 T.. (Cont'Ed) AR = = ND7D .... K = = ND7D K (see N&O 195)	CW	(JPL)
M89	20-12-2013	1930	Fri	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //7602	CW	(JPL)
M89	20-12-2013	1930	Fri	7602	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	20-12-2013	1932	Fri	3761	V YUQW (x3) DE ASDF (x2) (Cont'd)	CW	(JPL)
M89	20-12-2013	1933	Fri	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd)	CW	(JPL)
M89	20-12-2013	1937	Fri	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	20-12-2013	1939	Fri	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	20-12-2013	1939	Fri	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	20-12-2013	1940	Fri	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	20-12-2013	1940	Fri	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //3761	CW	(JPL)
M89	20-12-2013	2103	Fri	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	20-12-2013	2105	Fri	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	20-12-2013	2106	Fri	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	20-12-2013	2106	Fri	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //3761	CW	(JPL)
M89	20-12-2013	2107	Fri	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	20-12-2013	2107	Fri	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	20-12-2013	2111	Fri	4474	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	CW	(JPL)
M89	20-12-2013	2303	Fri	4474	V RXP7 (x3) DE CZT2 (x2) (Cont'd)	CW	(JPL)
M89	21-12-2013	0200	Sat	7740	V CQ CQ CQ DE DP9J DP9J	CW	(JPL)
M89	21-12-2013	0220	Sat	6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //10640	CW	(JPL)
M89	21-12-2013	0220	Sat	10640	VVV (x3) Q2M (x3) DE NYZ (x2) (R5) //6840	CW	(JPL)
M89	21-12-2013	0227	Sat	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //7602	CW	(JPL)
M89	21-12-2013	0227	Sat	7602	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	21-12-2013	0737	Sat	8750	V YUQW (x3) DE ASDF (x2) (Cont'd) //10210	CW	(JPL)
M89	21-12-2013	0737	Sat	10210	V YUQW (x3) DE ASDF (x2) (Cont'd) //8750	CW	(JPL)
M89	21-12-2013	0742	Sat	6773	V H2FL (x3) DE DRV8 (x2) (Cont'd)	CW	(JPL)
M89	21-12-2013	0749	Sat	10180	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	21-12-2013	1246	Sat	5801	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	21-12-2013	1248	Sat	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	21-12-2013	1248	Sat	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //3761	CW	(JPL)
M89	21-12-2013	1249	Sat	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)



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M89	21-12-2013	1249	Sat	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	21-12-2013	1252	Sat	7777	In tfc: RMKS 420 EEEEE 4203 TO 4283 TO 4365 TO C798 TO 4203 K. R GA. R 1W = = A764 45N. 3T67 (Cont'd) AGN	CW	(JPL)
M89	21-12-2013	1508	Sat	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	21-12-2013	1510	Sat	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	21-12-2013	1510	Sat	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //3761	CW	(JPL)
M89	21-12-2013	1511	Sat	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	21-12-2013	1511	Sat	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	21-12-2013	1600	Sat	5801	CK 91V19 1221 22 . VV HR MSG NR 015/CCK CK 91 19 1221 2100 RMKS 6FH = 67.. TD3. 6746 7UU3 76DA 3TNT .. (Cont'd) //5801	CW	(JPL)
M89	21-12-2013	1600	Sat	10180	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5801	CW	(JPL)
M89	21-12-2013	1946	Sat	5234	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	21-12-2013	1952	Sat	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5234	CW	(JPL)
M89	21-12-2013	1952	Sat	5234	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	21-12-2013	1954	Sat	3761	V YUQW (x3) DE ASDF (x2) (Cont'd)	CW	(JPL)
M89	21-12-2013	1958	Sat	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd)	CW	(JPL)
M89	21-12-2013	2134	Sat	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	21-12-2013	2135	Sat	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5234	CW	(JPL)
M89	21-12-2013	2135	Sat	5234	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	21-12-2013	2137	Sat	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	21-12-2013	2137	Sat	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //3761	CW	(JPL)
M89	21-12-2013	2138	Sat	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	21-12-2013	2138	Sat	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	21-12-2013	2335	Sat	5588	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	21-12-2013	2338	Sat	5234	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	21-12-2013	2339	Sat	3761	V YUQW (x3) DE ASDF (x2) (Cont'd) //5485	CW	(JPL)
M89	21-12-2013	2339	Sat	5485	V YUQW (x3) DE ASDF (x2) (Cont'd) //3761	CW	(JPL)
M89	22-12-2013	1137	Sun	5801	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //10180	CW	(JPL)
M89	22-12-2013	1137	Sun	10180	V DKG6 (x3) DE 3A7D (x2) (Cont'd) /5801	CW	(JPL)
M89	22-12-2013	1546	Sun	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	27-12-2013	0154	Fri	7740	CQ CQ CQ DE DP91 DP91 V. HR NIL SK GB HR NIL SK GB	CW	(JPL)
M89	27-12-2013	0218	Fri	5801	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //10180	CW	(JPL)
M89	27-12-2013	0218	Fri	10180	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //5801	CW	(JPL)
M89	27-12-2013	2035	Fri	3797	v H2FL H2FL H2FL de DRV8 DRV8	CW	(FN)
M89	28-12-2013	0200	Sat	10180	v dkg6 dkg6 dkg6 de 3a7d 3a7d	CW	(AtB)
M89	29-12-2013	0100	Sun	7601	3A7D	CW	(AtB)
M89	29-12-2013	1620	Sun	6840	vuv Q2M Q2M Q2M de NYZ NYZ	CW	(FN)
M89	30-12-2013	1451	Mon	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	30-12-2013	1454	Mon	3761	V YUQW (x3) DE ASDF (x2) (Cont'd)	CW	(JPL)
M89	30-12-2013	2106	Mon	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd)	CW	(JPL)
M89	30-12-2013	2109	Mon	3761	V YUQW (x3) DE ASDF (x2) (Cont'd)	CW	(JPL)
M89	30-12-2013	2245	Mon	3642	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //7602	CW	(JPL)
M89	30-12-2013	2245	Mon	7602	V DKG6 (x3) DE 3A7D (x2) (Cont'd) //3642	CW	(JPL)
M89	31-12-2013	1346	Tue	5485	V YUQW (x3) DE ASDF (x2) (Cont'd)	CW	(JPL)
M89	31-12-2013	1350	Tue	3797	V H2FL (x3) DE DRV8 (x2) (Cont'd) //4512	CW	(JPL)
M89	31-12-2013	1350	Tue	4512	V H2FL (x3) DE DRV8 (x2) (Cont'd) //3797	CW	(JPL)
M89	31-12-2013	1355	Tue	4225	V 7NPE (x3) DE QV5B (x2) (Cont'd) //5500	CW	(JPL)
M89	31-12-2013	1355	Tue	5500	V 7NPE (x3) DE QV5B (x2) (Cont'd) //4225	CW	(JPL)
M89	31-12-2013	1920	Tue	6840	VVV (x3) Q2M (x3) DE NYZ (x2) (R5)	CW	(JPL)
M89	31-12-2013	1937	Tue	3330	V MW3D (x3) DE 2SLC (x2) (Cont'd)	CW	(JPL)
M89	31-12-2013	1941	Tue	4225	V 7NPE (x3) DE QV5B (x2) (Cont'd)	CW	(JPL)
M97	25-6-2013	1455		10375	SD 81, SN70, message x3	CW	(Token)
M97	9-7-2013	1455		10375	SD 88, SN 45, message x3	CW	(Token)
M97	15-7-2013	1455		10375	SD 88, SN 45, message x3	CW	(Token)
M97	17-7-2013	1455		10375	SD 83, SN 40, message x3	CW	(Token)

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M97	25-7-2013	1455		10375	SD 83, SN 40, message x3	CW	(Token)
M97	31-7-2013	1455		10375	SD 83, SN 40, message x3	CW	(Token)
M97	9-8-2013	1454		10375	SD 84, SN 58, message x3	CW	(Token)
M97	13-8-2013	1454		10375	SD 84, SN 58, message x3	CW	(Token)
M97	27-8-2013	1454		10375	SD 84, SN 58, message x3	CW	(Token)
M97	28-8-2013	1454		10375	SD 84, SN 58, message x3	CW	(Token)
M97	25-10-2013	1454		10375	SD 83, SN 40, message x3	CW	(Token)
M97	27-11-2013	1500		10375	SD 84, SN 58, message x3	CW	(Token)
M97	28-11-2013	1500		10375	SD 84, SN 58, message x3	CW	(Token)
M97	19-12-2013	1459	Thu	10375	SD 84, SN 58, message x3	CW	(Token)
M97	20-12-2013	1459	Fri	10375	SD 84, SN 58, message x3	CW	(Token)
M97	23-12-2013	1459	Mon	10375	SD 84, SN 58, message x3	CW	(Token)
M97	24-12-2013	1459	Tue	10375	SD 84, SN 58, message x3	CW	(Token)
M97	26-12-2013	1459	Thu	10375	SD 84, SN 58, message x3	CW	(Token)
M97	27-12-2013	1459	Fri	10375	SD 84, SN 58, message x3	CW	(Token/RWO)
MX	5-12-2013	2139	Thu	3593.7	Beacon "D" Sevastopol	CW	(SW2)
MX	5-12-2013	2139	Thu	3593.7	Beacon "D" Sevastopol	CW	(SW2)
MX	5-12-2013	2140	Thu	3593.9	Beacon "S" Sevoromorsk	CW	(SW2)
MX	5-12-2013	2140	Thu	3593.9	Beacon "S" Sevoromorsk	CW	(SW2)
MX	7-12-2013	1622	Sat	5153.9	Beacon "C" Severomorsk	CW	(LG2)
MX	8-12-2013	1558	Sun	16331.7	Beacon "D" Sevastopol	CW	(WP3)
MX	8-12-2013	1558	Sun	16331.9	Beacon "S" Severomorsk	CW	(WP3)
MX	8-12-2013	1558	Sun	16332	Beacon "C" Moscow	CW	(WP3)
MX	11-12-2013	1837	Wed	5154.7	Beacon "D"	CW	(AB)
MX	11-12-2013	1837	Wed	5154.9	Beacon "S"	CW	(AB)
MX	11-12-2013	1837	Wed	7038.8	Beacon "P"	CW	(AB)
MX	11-12-2013	1837	Wed	7038.9	Beacon "S"	CW	(AB)
MX	18-12-2013	2315	Wed	3593.7	Beacon "D" Sevastopol	CW	(LG2)
MX	19-12-2013	1901	Thu	3658	Beacon "V"	CW	(AB)
MX	24-12-2013	2150	Tue	3594.7	Beacon "D"	CW	(AB)
MX	24-12-2013	2150	Tue	3594.9	Beacon "S"	CW	(AB)
MX	24-12-2013	2150	Tue	4557.9	Beacon "C"	CW	(AB)
MX	24-12-2013	2150	Tue	5153.9	Beacon "S"	CW	(AB)
MX	24-12-2013	2150	Tue	7038.7	Beacon "D"	CW	(AB)
MX	24-12-2013	2150	Tue	7038.8	Beacon "P"	CW	(AB)
MX	24-12-2013	2150	Tue	8494.7	Beacon "D"	CW	(AB)
MX	29-12-2013	2000	Sun	3335	Beacon "V"	CW	(MPJ)
MX	29-12-2013	2233	Sun	3335	Beacon "V"	CW	(AB)
MX	29-12-2013	2233	Sun	3658	Beacon "V" slower than 3335 kHz	CW	(AB)
MX	31-12-2013	1513	Tue	7000	Beacon "P"	CW	(AB)
RAv	23-12-2013	1404	Mon	11360	Acft 76554 (IL-76MD) clg Proselok (Russian Air Force 566th Military Transport Aviation Regiment Bryansk) w/no response	USB	(RP-MD)
RMv	2-12-2013	1308	Mon	4625	Amur-66, ya Sazhen'-74, slyshu vas khorosho, kak vy menya? Priyom	USB	(RSRus)
RMV	2-12-2013	1309	Mon	4625	Amur-66, ya Sazhen'-74, primate komandu ZEB ZKP ZOYe SHCHET4, povtoryayu ZEB ZKP ZOYe SHCHET4, kak menya ponyali, priyom	USB	(RSRus)
RMv	2-12-2013	1450	Mon	4625	Kuban-97, ya Duga-78	USB	(RSRus)
RMV	2-12-2013	1644	Mon	4625	Amur-66, ya Sazhen'-74, zakonchit' rabotu SHCH4, priyom	USB	(RSRus)
S--	15-12-2013	0914	Sun	11046	Russian Man ends noll noll noll	USB	(LG2)
S---	12-12-2013	1211	Thu	10920	426 ?? noll noll noll	USB	(LG2)
S06	2-12-2013	1900	Mon	3192	349 349 349 00000	USB	(HFD)
S06	3-12-2013	1800	Tue	3645	617 0	USB	(HFD)
S06	5-12-2013	1900	Thu	3192	349 349 349 00000	USB	(HFD)
S06	7-12-2013	1605	Sat	5943	764 0	USB	(HFD)

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S06	9-12-2013	1900	Mon	3192	349 349 349 00000	AM	(Topol)
S06	9-12-2013	2015	Mon	5140	418 418 418 00000	AM	(Topol)
S06	14-12-2013	1605	Sat	5943	764 0	USB	(HFD)
S06	14-12-2013	1935	Sat	3832	426 426 426 00000	USB	(RWO)
S06	14-12-2013	1935	Sat	3834	426 0	USB	(HFD)
S06	16-12-2013	1905	Mon	3838	349 0	USB	(HFD)
S06	16-12-2013	1905	Mon	3838	349 349 349 00000	AM	(Topol)
S06	19-12-2013	1900	Thu	3192	349 0	USB	(HFD)
S06	21-12-2013	1600	Sat	7387	764 0	USB	(HFD)
S06	21-12-2013	1930	Sat	3172	426 0	USB	(HFD)
S06	21-12-2013	1930	Sat	3172	426 426 426 00000	USB	(RWO)
S06	23-12-2013	1900	Mon	3192	349 0	USB	(HFD)
S06	23-12-2013	1900	Mon	3192	349 349 349 00000	USB	(RWO)
S06	23-12-2013	2015	Mon	5140	418 0	USB	(HFD)
S06	26-12-2013	1900	Thu	3192	349 0	USB	(HFD)
S06	28-12-2013	1935	Sat	3834	426 426 426 00000	USB	(RWO)
S06	30-12-2013	1310	Mon	10635	831 831 831 00000	AM	(AB)
S06	30-12-2013	1905	Mon	3828	349 349 349 00000	USB	(RWO)
S06s	3-12-2013	1500	Tue	6845	537 429 6 45847 23013 89758 41412 55678 06675 429 6 00000	USB	(Topol)
S06s	3-12-2013	1510	Tue	9170	537 429 6 45847 23013 89758 41412 55678 06675 429 6 00000	USB	(Topol)
S06s	4-12-2013	0820	Wed	6778	471 280 5 46062	USB	(HFD)
S06s	4-12-2013	0820	Wed	6778	471 280 5 46062 68672 97478 39685 30485 280 5 00000	USB	(Topol)
S06s	4-12-2013	0830	Wed	7335	745 903 6 21767 53672 11834 81022 36803 41412 903 6 00000	USB	(Topol)
S06s	4-12-2013	0830	Wed	7675	471	USB	(HFD)
S06s	4-12-2013	0840	Wed	9260	328 904 5 05899 50387 45847 23013 89758 904 5 00000	USB	(Topol)
S06s	7-12-2013	1210	Sat	8260	254 980 6 46062 68672 97478 39685 30485 96632 980 6 00000	USB	(Topol)
S06s	9-12-2013	1300	Mon	8420	831 207 5 33796 13677 74526 46647 79302 207 5 00000	USB	(Topol)
S06s	9-12-2013	1310	Mon	10635	831 207 5 33796 13677 74526 46647 79302 207 5 00000	USB	(Topol)
S06s	11-12-2013	0830	Wed	7335	745 903 6 21767	USB	(FN)
S06s	11-12-2013	0840	Wed	9260	328 904 5 05899	USB	(FN)
S06s	11-12-2013	0840	Wed	11830	745 903 6 21767	USB	(FN)
S06s	11-12-2013	0850	Wed	11415	328 904 5 05899	USB	(FN)
S06s	11-12-2013	1000	Wed	12365	729 841 5 52710	USB	(FN)
S06s	11-12-2013	1010	Wed	14280	729 841 5 52710	USB	(FN)
S06s	16-12-2013	0830	Mon	8234	371	USB	(HFD)
S06s	16-12-2013	0840	Mon	9270	371	USB	(HFD)
S06s	16-12-2013	0900	Mon	14675	872 954 6 47554	USB	(HFD)
S06s	16-12-2013	0910	Mon	12830	872	USB	(HFD)
S06s	17-12-2013	0800	Tue	10265	352 470 6 21816	USB	(HFD)
S06s	17-12-2013	0810	Tue	9135	352	USB	(HFD)
S06s	23-12-2013	0830	Mon	8234	371 948 5 10597 23521 47660 92883 69901 948 5 00000	USB	(RWO)
S06s	24-12-2013	0700	Tue	5250	374 980 5 40613 77249 40678 17976 21816 980 5 00000	USB	(RWO)
S06s	24-12-2013	0810	Tue	9135	352 470 6 21816 42997 94184 47374 74154 08531 470 6 00000	USB	(RWO)
S11a	11-12-2013	1020	Wed	6433	221/00	USB	(FN)
S11a	18-12-2013	1020	Wed	6433	221/00	USB	(HFD)
S11a	21-12-2013	1020	Sat	6433	221/00	USB	(HFD)
S21	7-12-2013	1930	Sat	3172	426 426 426 00000	USB	(Topol)
S28	9-12-2013	1258	Mon	4625	MDZhB 83 703 VALIUM 37 98 66 31 Prijom	USB	(AB)
S28	9-12-2013	1300	Mon	4625	MDZhB 65 022 PETELShChIK 24 13 29 71 VIRALA 29 59 03 46 Prijom	USB	(AB)
S28	9-12-2013	1731	Mon	4625	The Buzzer	USB	(LG2)
S28	26-12-2013	1322	Thu	4625	MDZhB 07 943 TALAUD 29 67 06 75 Priyom	USB	(AB)

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S28	26-12-2013	1323	Thu	4625	MDZhB 64 882 OBTURATOR 26 11 79 95 Priyom	USB	(AB)
S30	11-12-2013	1938	Wed	3756	The Pip	USB	(LG2)
S30	21-12-2013	0434	Sat	5448	Message: Dlia OSOG BO6C F56ShCh 9GSA ZhBZU 4RVZ 3VS? ?KJ? 6IOZh Zh?9V. Kak slyshno, kak slyshno? Priyom.	USB	(RWO)
S32	18-12-2013	1934	Wed	3828	Message	USB	(RWO)
S6930	10-11-2013	1418		6930	Katok-65 33386 Listok 83 53 88 30 priyom	USB	(ScSw)
V02a	24-12-2013	2001	Tue	7555	YL/SS with 5F grps. Very weak sig with bad QRM from SW Bcst.	USB	(DSch)
V02a	26-12-2013	2012	Thu	7555	YL/SS announcing msg in 5F grps. Very bad QRM from SW Bcst	USB	(DSch)
V02a	31-12-2013	2001	Tue	7555	YL/SS w/5F grps and pause after each 10 grps. Best reception in LSB	AM	(DSch)
V07	1-12-2013	0100	Sun	16037	661 661 661 1 565 85 72334 94981 .....77154 000 000	USB	(Dan/Token)
V07	1-12-2013	0120	Sun	14637	661 661 661 1 565 85 72334 94981 .....77154 000 000	USB	(Dan/Token)
V07	1-12-2013	0140	Sun	12137	661 661 661 1 565 85 72334 94981 .....77154 000 000	USB	(Dan/Token)
V07	8-12-2013	0100	Sun	16037	661 661 661 000	USB	(Dan)
V07	8-12-2013	0120	Sun	14637	661 661 661 000	USB	(Dan)
V07	15-12-2013	0100	Sun	16037	661 661 661 1 (x5) 292 83 (x2) 38832 51331 ..... 53295 000 000	USB	(Dan)
V07	15-12-2013	0120	Sun	14637	661 661 661 1 (x5) 292 83 (x2) 38832 51331 ..... 53295 000 000	USB	(Dan)
V07	15-12-2013	0140	Sun	12137	661 661 661 1 (x5) 292 83 (x2) 38832 51331 ..... 53295 000 000	USB	(Dan)
V07	22-12-2013	0100	Sun	16037	661 661 661 000	USB	(Dan/HFD)
V07	22-12-2013	0120	Sun	14637	661 661 661 000	USB	(Dan/HFD)
V07	29-12-2013	0100	Sun	16037	661 661 661 000	USB	(Dan)
V07	29-12-2013	0120	Sun	14637	661 661 661 000	USB	(Dan)
V13	9-12-2013	0308	Mon	9276	New Star in progress	AM	(TI)
V13	10-12-2013	0301	Tue	9276	New Star in progress	AM	(TI)
V13	14-12-2013	0700	Sat	9522	New Star #4. Tune followed by coded messages	USB	(AB-HK)
V13	14-12-2013	0800	Sat	9522	New Star #4. Tune followed by coded messages	USB	(AB-HK)
V13	15-12-2013	0700	Sun	9522	New Star #4. Tune followed by coded messages	USB	(AB-HK)
V13	15-12-2013	0800	Sun	9522	New Star #4. Tune followed by coded messages	USB	(AB-HK)
V13	15-12-2013	0810	Sun	9522	New Star i.p.	AM	(TCZ)
V13	22-12-2013	1302	Sun	8300	New Star starting with Chinese music followed by coded message in Chinese	USB	(PPA)
V13	27-12-2013	0809	Fri	9522	New Star in progress	USB	(AB-HK)
V13	30-12-2013	0402	Mon	9276	New Star i.p.	USB	(TI)
V13	30-12-2013	0706	Mon	9522	New Star i.p.	USB	(TI)
V13	30-12-2013	0800	Mon	9522	New Star	USB	(TI)
V13	31-12-2013	0800	Tue	9522	New Star #4. Tune followed by coded messages	USB	(AB-HK)
V24	5-12-2013	1430	Thu	6310		USB	(Token)
V24	6-12-2013	1430	Fri	6310		USB	(Token)
V24	15-12-2013	1300	Sun	6310		USB	(Token)
V24	15-12-2013	1430	Sun	6310		USB	(Token)
V24	16-12-2013	1430	Mon	6310		USB	(Token)
V24	22-12-2013	1300	Sun	6310		USB	(Token)
V24	23-12-2013	1300	Mon	6310		USB	(Token)
V26	23-12-2013	1006	Mon	9153		USB	(rusl)
V26	24-12-2013	0954	Tue	9153	Chinese numbers station	USB	(rusl)
V30	19-12-2013	1559	Thu	10255	SD 75, SN 35, message x3	USB	(Token)
V30	20-12-2013	1559	Fri	10255	SD 75, SN 35, message x3	USB	(Token)
V30	23-12-2013	1559	Mon	10255	SD 75, SN 35, message x3	USB	(Token)
V30	24-12-2013	1559	Tue	10255	SD 75, SN 35, message x3	USB	(Token)
V30	26-12-2013	1559	Thu	10255	SD 75, SN 35, message x3	USB	(Token)
V30	27-12-2013	1559	Fri	10255	SD 75, SN 35, message x3	USB	(Token)
V30	27-12-2013	1600	Fri	10255		USB	(RWO)

enigma	date	UTC	day	frequency	remarks	mode	contributor
VC01	3-12-2013	1500	Tue	4165	Chinese Robot	USB	(token)
X06	19-12-2013	0816	Thu	14488	Mazielka. Sequence: 162543	USB	(PH)
XPA	3-12-2013	1900	Tue	8164	msg	MFSK-20/10Bd/USB	(HFD)
XPA	3-12-2013	1920	Tue	7364	msg	MFSK-20/10Bd/USB	(HFD)
XPA	3-12-2013	1940	Tue	5864	msg	MFSK-20/10Bd/USB	(HFD)
XPA	4-12-2013	0700	Wed	7756	msg	MFSK-20/10Bd/USB	(HFD)
XPA	4-12-2013	0720	Wed	9056	msg	MFSK-20/10Bd/USB	(HFD)
XPA	4-12-2013	0740	Wed	10656	msg	MFSK-20/10Bd/USB	(HFD)
XPA	5-12-2013	1900	Thu	8164	Messages 138 138 138 138... 09831 00245 36267 90487 13741 5656 30938 69220 ... 68167 18927 80834 71620 7710 47286 ...	MFSK-20/10Bd/USB	(MPJ)
XPA	7-12-2013	0700	Sat	7756	770066 770066 000000	MFSK-20/10Bd/USB	(RWO/AB)
XPA	14-12-2013	0700	Sat	7756	770066 770066 000000 770066 770066 770066 000000 770066 770066 770066 000000	MFSK-20/10Bd/USB	(RWO)
XPA	21-12-2013	0700	Sat	7756	770066 770066 11 770066 770066 770066 11 770066 770066 770066 11	MFSK-20/10Bd/USB	(RWO)
XPA	24-12-2013	1900	Tue	8164	138 138 138 000 138 138 138 000 138 138 138 000 02217 00001 00000 10140	MFSK-20/10Bd/USB	(RWO)
XPA	31-12-2013	1900	Tue	8164	138 138 138 00000 05216 00001 00000 10140	MFSK-20	(RWO)
XPA2	3-12-2013	0800	Tue	20258	msg	MFSK-16	(HFD)
XPA2	3-12-2013	0820	Tue	17558	msg	MFSK-16	(HFD)
XPA2	3-12-2013	0840	Tue	15858	msg	MFSK-16	(HFD)
XPA2	24-12-2013	0800	Tue	20258	00144 0113 33311 56603 12048 56752 42341 (see N&O 195)	MFSK-16	(RWO)
XSL	14-12-2013	1122	Sat	8588	Japanese Navy	QPSK 1500	(LG2)
XSL	24-12-2013	0730	Tue	8588	Japanese slot machine	QPSK 1500	(RWO)
XSL	25-12-2013	1010	Wed	4152	Japanese slot machine	QPSK 1500	(DM0551)
XSL	25-12-2013	1010	Wed	4231.5	Japanese slot machine	QPSK 1500	(DM0551)
XSL	25-12-2013	1010	Wed	6250	Japanese slot machine	QPSK 1500	(DM0551)
XSL	25-12-2013	1010	Wed	6417	Japanese slot machine	QPSK 1500	(DM0551)
XSL	25-12-2013	1010	Wed	8313	Japanese slot machine	QPSK 1500	(DM0551)
XSL	25-12-2013	1010	Wed	8588	Japanese slot machine	QPSK 1500	(DM0551)
XSL	25-12-2013	1010	Wed	8703.5	Japanese slot machine	QPSK 1500	(DM0551)

## CONTRIBUTORS

07c	07code04stalker1776	LG2	Les G, UK
AB	Ary Boender, Netherlands	MCO	Mike Chace-Ortiz, PA, USA
AB-HK	Ary Boender via remote rx Hong Kong	ML	ML
AtB	Attu Bosch, AK, USA	MPJ	Jim, SW England
BCI	Bruno Casula, Italy	PH	Paul H, UK
Dan	Daniel, Argentina	PPA	Peter Poelstra, Netherlands
DK8OK	DK8OK Nils Schiffhaur, D	RP-MD	Ron, MD, USA
DM0551	Dave moonlight0551, Sydney, Australia	RR3	Rob Rich
DSch	Don Schimmel, USA	RSRu	via Radioscanner Russia
EW	Eddy Waters, Australia	rusl	Russell, Australia
FN	Fritz Nusser, Switzerland	RWO	RW Observer
GHn	Gary Hagermann, UK	scsw	ScanSweden, Sweden
GT	Glimmer Twins	SFNY	Shawn, Flushing, NY, USA
HFD	Hans-Friedrich Dumrese, Germany	TCZ	TotoCZ
HS	Hugh Stegman, USA	TI	Tomonori Izumi, Japan
JPL	JPL, Ontario, Canada	Token	T!, CA, USA
JPL-FNL	JPL via remote rx Finland	Tom	Tom, Lincs, UK
JPL-RUS	JPL via remote rx Russia	Topol	Tony, UK
JPL-Sib	JPL via remote rx Siberia	WP3	Wolfgang Palmberger
KA1IIC	KA1IIC, Vince, USA		

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Forum: <http://www.hfunderground.com/board/>